

# THE MONIST

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## BENEDETTO CROCE'S ESTHETICS.<sup>1</sup>

NO man who has made the study of literature the real business and the fundamental interest of his life can escape feeling slightly ashamed of the uncertainty and the vagueness of the principles on which his knowledge rests, as compared with the clearness and certitude of the principles of the natural and mathematical sciences. If he limits himself to mere arid learning, his science does not differ much from that of a catalogue or a dictionary; if he attempts, on the other hand, to grasp the spirit of the facts which are the object of his science, he is left to his personal taste without any fixed standard or rational criterion of judgment. In no other subject is it so difficult to grasp both the letter and the spirit, to avoid bare erudition on one side and vain dilettantism on the other.

No such uneasiness seems to have been felt by literary men in the past. This condition of things revealed itself to our consciousness only in the presence of the wonderful development of the natural sciences in the last century; and the remedy for it was sought for, in consequence, in the methods which appeared to be so profitable in that department of human knowledge. Literature, people have seemed to think, has hitherto been nothing else than a kind of harmless folly; let us try to reform it from the bottom up and create a science, a natural science, of literature.

<sup>1</sup> Lecture delivered at the University of Cambridge, November 26, 1913. It is based on Croce's *Estetica*, 3d ed., Bari, 1908, and *Problemi di estetica*, Bari, 1910.

Pure philology assimilated itself to biology, and the history of literature hoped to find at least as firm a basis as that other natural science of human facts, sociology. The arbitrariness had, as by the touch of a magic wand, miraculously disappeared; our feet trod the solid ground of natural certitude ruled by absolute laws.

It was, we must confess, a happy and fruitful delusion, if not perhaps in the study of literature itself, certainly in that of the history of language. The work accomplished was admirable, although its real meaning and value was different from what the people who did it generally thought. But a delusion, no doubt, it was. Now that even biology is realizing that to reduce a fact to its elements is not the same thing as to know it, and that purely mechanical or chemical laws are not sufficient to account for the phenomena of life—now that the natural sciences, in a word, resisting the temptation to put themselves in the place of philosophy, ask philosophy for the concepts which are necessary to make intelligible the study of their data—nobody can any longer believe that the methods which have proved to be inadequate to give us a real, intimate knowledge of natural processes, can succeed in giving a satisfactory explanation of human, spiritual facts.

I do not mean in the least to say that philology has been all this time on a wrong track, but that we have seen only one side of the problems we were studying while we have been nearly blind in regard to the other. We have seen the dead body and not the living spirit; we have constructed the anatomy and not the physiology of language. And the same applies to the so-called scientific study of literature. We have forgotten that the facts which were before us were totally and substantially different from natural facts, and the result is that if we know much more than our fathers did of the external history of these facts we are quite as perplexed as they were when we try to master their

spiritual intimacy, to re-create in ourselves their original life, to exert on them our real human knowledge and judgment. We know a great deal more than our fathers did of the literary events of the past, of their succession and development, but we are not a bit nearer to the great souls of the few poets that really matter. We have advanced, in a word, and enormously advanced, in what the Germans call *Kulturgeschichte*, both from the linguistical and the literary side, but we are always at the same point in the real history of literature. I shall return later on to this distinction, which seems to me fundamental.

The facts of language and literature, we have said, are essentially spiritual facts. Therefore the real remedy for our perplexities does not lie in natural science but in the science of human spirit, that is in modern philosophy. The key is not philology but that much-abused philosophical science, esthetics. But here again we are confronted by many obstacles. First of all, many literary people seem to have a sort of traditional and salutary distrust of all kinds of philosophy; they do not think that they can draw any help from any science which seems to be busy enough with its own internal difficulties and concerning which it is generally affirmed that no decisive consensus of opinion can be found on any point of real importance. This comes from considering philosophy as a science, a particular science, in the great family of sciences, and not, as it really is, as the fundamental activity of every thinking being. We are under a strange delusion when we think that we can do without any philosophy; our thought *is* our philosophy, and none of us can help being a philosopher any more than he can help being, as we shall see, a poet. A student of literature and languages is always, whether he is aware of it or not, an esthetician, and at the root of every error in judgment or method is, either explicitly or implicitly, a false esthetic theory. The thought underlying the great

revival of philological studies can thus be defined as a naturalistic esthetics.

Another delusion, I think, is the absence of consensus in philosophical matters. Philosophy is a free activity—I should like to say *the* free activity of the mind—and it takes as many shapes as there are human minds cooperating in its perennial work. But this variety is not arbitrary, and no real philosopher, no man worthy of the name, can think to-day without accepting the conditions made for his thought by the thought of past ages. Philosophy has its history, and history is inevitably consensus of opinion. All philosophers have always claimed for their systems the merit of being the natural conclusion of all preceding systems. Of course it is not a consensus such as you can find in the natural sciences, where the results can be given without the processes by which they have been reached and are easily intelligible to the profane mind. The consensus of philosophy is such as to require your consent; your own mind must become the last link of the golden chain if you want to realize how contrasting opinions work together in the course of centuries for the truth of to-day.

For there is a truth of to-day which was not the truth of yesterday. Our world is always new to the ever new eyes of the human spirit. In the words of Heraklitus, ὁ ἥλιος νέος ἐφ' ἡμέρῃ ἐστίν. Truth is not something that we can fix for ever, an object existing for itself apart from our thought, but the perpetual creation of the human mind, and it is therefore of such an elusive nature as to be really alive only in the always new life of thought itself. Nor are we justified in holding aloof from this work, which is the only conceivable end to the life of humanity as a whole, because we know that our truth shall be superseded by the truth of our sons. On the contrary, it is only by taking the most active part in this work that we can live an effectual life whose action shall still continue in the work of our sons.



But I have gone a little too far from my subject in this refutation of scepticism in philosophy. Let us grant that esthetics is necessary to the study of literature, at least as much as the analysis of the fundamental concepts on which a science is founded is necessary to the understanding of that particular science. But here again the sceptic will find a new justification for his mental attitude in the variety of studies and theories which go under that name. I think I have made it clear that I am talking of esthetics as a philosophical science. The consequence is that all purely psychological esthetics will not satisfy my needs. The object of psychology in this field is only esthetic preference, while the object of philosophy is esthetic activity. And as long as psychology does not interfere with philosophy I believe that its researches may be of great scientific importance, but they do not present any direct interest to the philosopher as such, still less to the critic or to the artist.

Esthetic preference is merely a moment or a particular case, abstracted from its spiritual reality, of esthetic activity; and psychological analysis, however interesting and illuminating in itself, will never be able, without ceasing to be pure psychology and becoming philosophy, to tell us what is the meaning, value and nature of art as a form or grade of the life of the spirit. But when psychologists, forgetting the limits of their science, pretend to give an answer to philosophical problems by using only the abstract concepts and the mechanical methods of psychology, then I believe the philosopher is right if he asks them to mind their own business.

When William James, for instance, places musical pleasure between sentimental love and sea-sickness as phenomena unaccountable by any value for human survival, in fact mysteries if not paradoxes of evolution, we are right in saying that he has turned the problem upside down, because it is not that music must be justified by human sur-

vival, but human survival itself acquires a value and a meaning from the very existence of such men as Palestrina and Beethoven.

The simplest facts of our spiritual life become unintelligible when we see them in the same light as merely natural facts. Nature, indeed, cannot give light to the spirit; the spirit *is* the light of nature, and esthetics as a science is either a part of a complete system of philosophy of the spirit or it is nothing at all. The negative proof of this affirmation is clearly given, I think, by estheticism—if we may so call the body of ideas which gave birth to the esthetic movement. Few men, I believe, though it may seem a paradox, had such a definite idea of the spiritual nature of art as Oscar Wilde; but he had no philosophical training and knew nothing, or very little, of the real thought of his age. So his theories, which would often have found their absolute justification on the higher ground of philosophy, are little more than elegant paradoxes, because he had not a clear consciousness of the nature of his speculation, and kept it on the plane of vulgar thought or common sense, where the paradoxes acquire such an extravagant appearance. He fought vehemently against established prejudices, but the truth he saw could not take in his mind any other form than that of new prejudices which will never, perhaps, establish themselves. To the absurd claims of morality in art he could only answer, "All art is immoral"; but if that is enough, perhaps, to put the problem on the way toward solution, it is by no means a solution, nor even an attempt at a solution. Only philosophy can prove that the two horns of the dilemma are both false, and that, now as ever, *in medio stat virtus*.

## II.

The latest development of philosophical esthetics is to be found, I believe, in the works of Benedetto Croce. I re-

gret that the strict limits of this lecture will only allow me to give a very cursory and dogmatic exposition of his ideas, such as must be deemed insufficient by those who are not acquainted with them, and still more by those who are. Only a long course of lectures could give a complete idea of Croce's system, and, esthetics being but a part of it, a knowledge of the whole would in fact be necessary to its full comprehension. On the other hand, Croce's ideas on art and language are of such a nature that they will easily lend themselves to the inference of some conclusions which are of primary importance for our problems and whose truth seems to me absolutely self-evident even from a merely empirical standpoint. This validity and usefulness of its consequences is, to my mind, the best proof of the consistency of Croce's thought.

Croce's esthetics is a science of expression and language. To make clear its character it is necessary to go back to some of its antecedents. The merit of considering art as one of the autonomous forms or grades of spiritual activity belongs to German romantic idealism; but in that period of wild enthusiasm for the newly discovered omnipotence of human spirit art was never able to find its right place in the succession of these forms or grades. Post-Kantian philosophy oscillates between intellectualism, such as Hegel's, and mysticism, such as Schelling's. Kant had prepared this right place in his system, when distinguishing in his *Critique of Pure Reason* transcendental esthetics from transcendental logic; but the pure intuition which was the object of his transcendental esthetics is nothing more than the totality of the *a priori* principles of sensibility limited to the categories of space and time. Art was still for him a mere sensual clothing of an intellectual content.

Croce accepts from Kant the fundamental distinction of esthetics and logic as respectively the sciences of two grades

of theoretical activity of which the second implies the first, but not *vice versa*; and he establishes the same relation in the second part of his system between the two grades of practical activity, the economic and the ethical. This relation is the relation of the individual to the universal. Economic volition is that of the individual, ethical is that of the universal; esthetical or intuitive knowledge is that of the individual, logical or conceptual that of the universal. But what made possible to Croce the identification of this first grade of human knowledge with art was the discovery of the true nature of art made at the beginning of the eighteenth century by Giambattista Vico. Vico can be said to be the real founder of the philosophy of spirit, or idealism, as he had foreseen long before Kant's *Prolegomena* the necessity of the new metaphysics being the metaphysics, as he said, of human ideas. But the whole of his speculation took the shape of an inquiry into the development of human society; he saw "the unity of the human spirit informing and giving life to this world of nations," and his philosophy appeared in the *Scienza Nuova* as an ideal and eternal history of mankind. So it happened that for a long time his work was thought to be essentially philosophy of history or, in the dark days of positivism, sociology. The fact is that his meaning could not be clear except in the light of the great idealistic philosophy; he shared with Bruno and Campanella the function of all Italian thought after the Renaissance, which had been that of foreshadowing and prefiguring the whole development of European philosophy, as by flashing light out of a deep darkness. The diffused light had to come after, by a long, conscious, critical process, generally independent of the work of these pioneers; still, such was the strength and primitive energy of their thought that even after centuries they had some words to say which had not been uttered elsewhere.

"Men," Vico said, "first feel without perceiving, then

they perceive and are perturbed and moved; finally they reflect with pure mind." We have here three grades, of which the first is mere sensation, the limit of spiritual activity; the second is intuition; the third concept. And he went on identifying the second grade—which really is, as we have seen, the first—with poetry. "Poetry," he says, "is the first operation of human mind." Poetry and metaphysics are distinct and opposed: the one is the knowledge of particular things, the other of the universal; the one strengthens the imagination, the other makes it weak; the poets are the senses, the philosophers the intellect of humanity. He described accordingly the first merely poetical society of men, whose symbol was Homer, and the permutation which it underwent when, little by little, the mind grew stronger than the imagination. But this is what we may call Vico's mythology, a part of his thought which is dead and which we must consider as a key to what is still alive. In the description of this mythical primitive society in which he had found the origin of poetry, he discovered the origin of languages also, which he assigned to the same spiritual grade, giving a new and deeper meaning to the Platonic φύσει or natural theory of the origin of language, as opposed to the θέσει or conventional one prevalent in his day.

We are now, I believe, prepared to understand Croce's esthetics; pure intuition, as distinct from and opposed to pure concept, is not the mere sensation which is still formless matter—the limit, as we have seen, of our spiritual activity; it is not perception, or not necessarily and only perception, for perception implies a judgment about the existence of the thing perceived which is immaterial to intuition. Of course experience is the source of all our knowledge, but the knowledge of a certain thing which I do not actually see but only remember, or even only create with my imagination, is an intuition as much as any perception

of external reality. In fact the distinction between the real and the unreal is an intellectual one and belongs to the same class of mental facts to which also belong the categories of space and time; they can be found in intuition, but only *materialiter* and not *formaliter*, as ingredients and not as necessary elements.

But still more important than the distinction between intuition and sensation or perception is the identification of the former with expression. "Every true intuition is at the same time an expression; what cannot objectify itself into an expression is nothing but mere sensation. The spirit does not intuit except by doing, forming and expressing." We must not think only of verbal expressions; there are intuitions which cannot be expressed by words, but only by sounds or lines or colors. But in any case the two terms can be interchanged; what really exists in our spirit is only what we can express. Many mortal men, I know, are convinced of being visited from time to time by the Muse, and believe that what distinguishes them from immortal poets is only the fact that for some reason or other they are not able or willing to express the treasure of poetical feelings that she deposits in their souls. It is a most comforting belief, but I would not advise such people to try and get hold of and put into words or sounds or lines or colors these vague phantasms of their imagination, for it would shatter their comfortable exaltation. They would see them dissolve into air like midnight ghosts at the break of dawn, and in their place they would find a handful of ashes of old lines and half-remembered melodies and half-forgotten pictures, fragments of intuitions which are sufficient to put us in a state not greatly different from that produced by a few glasses of old port, but which have not organized themselves into a new, real, full, effective intuition. Otherwise we would express it, if only in the secret recesses of our hearts, and be the equals of the immortal poets.

The relation is the same between intuition and expression as between volition and action. It is a common saying at least with us Italians, that the road to hell is paved with good intentions, but intentions are not real acts of the will any more than the vague reverie of the dilettante is a real intuition. Every act of the will is an action, and the distinction between the two loses all meaning when we consider, as we do, spirit and nature, the internal and the physical aspect of the same act, not as two entities but only as two different modes of elaborating the only reality, which is spiritual reality. And as therefore there is no action, on the other hand, which is not at the same time a volition, so there is no expression without a corresponding intuition. Every word that we utter has been preceded by its image in our spirit. Language is therefore a perpetual spiritual creation. We are accustomed to seeing dead words and syllables in books and dictionaries, and we believe generally that they are something external, a sort of instrument that we use and accommodate to this or that purpose. But words that grammarians study as independent elements of the linguistical organism are really alive and full of their meaning in their essential function only in the context of speech. The reality of words is only in the spirit that speaks, and every word is new every time that it is employed because it expresses that particular individual moment of spiritual activity which cannot be the same as any other one. Some philologists are inclined to admit that this is true for an original primitive period in which men created language, but maintain that the language so created did develop and does still by association or convention. It is impossible to draw a distinction between the problems of the origin and of the nature of language; and it is only the existence of all the previous expressions which have fixed themselves in the course of centuries and give us the false impression of a body of



language as a reality, independent of the individual activity that has produced the particular expressions, that prevents us from recognizing in the actual linguistical facts the same creative energy that formed the first words uttered by men.

We are not under the same delusion when we talk of the other categories of facts of expression; musical and pictorial language are mere metaphors—and we feel them as metaphors—that help us to collect some characteristics which are common to some of these facts. But in the presence of a certain melody or a certain picture we cannot forget the principle that no expression can give birth to a new expression without first becoming a new impression or intuition.

I know that the whole of this theory, and the identification of intuition with art and language, especially when formulated in the abrupt and imperfect way which alone is possible in a lecture, will raise many doubts and objections. But my aim is and cannot be any other than that of raising such doubts, as they are the best introduction to a more complete study of these problems. I shall try to meet one of these objections, one which probably will present itself to many of you. "What place is given in Croce's esthetics to Beauty? Is not Beauty the supreme object of art? And ought not esthetics to be the science of Beauty?" Beauty is one of those tyrannical words beginning with a capital letter which have kept the thought of man enslaved for centuries. For my part I prefer beauty with a small *b*. How long are we going to suffer this yoke? Or will men learn that words are our servants and that we must master them and make them subserve our ends? Why, I have seen—and many of you may have seen or heard—the poetry of that strong and captivating poet, Mr. Masefield, criticised because some of the tales told in his poems did not correspond to the ideal of beauty enthroned in the critic's

mind! Of course the same critic will not dare to apply the same criterion to established fames, but he will explain what he would call ugly in Shakespeare if he dared, as having been put in "Macbeth" or "Othello" to enhance by contrast the effectiveness of ideal beauty. Do you not think it would be charitable to explain to such critics that what a poet sings, or a painter paints, is not and cannot be either beautiful or ugly, but that beauty and ugliness are only qualities of the song or of the picture? And so we shall come back to the conception which is in the mind of any sensible man, and this common conception we could express also by saying that beauty in art is only beauty of expression and cannot be anything else. But then you must recognize that beauty and expression are in fact synonymous.

Every man who expresses himself is a poet, quite as much as Monsieur Jourdain, to his great astonishment, *faisait de la prose*. Only we reserve this name for men in whom the esthetic activity manifests itself in a higher degree. But who can draw an absolute distinction between expressions which are art and expressions which are not? Many times in the experience of every one of us we have heard a man deeply moved by his feelings talk in so picturesque and graphic and energetic a language that we felt we were present at the creation of something that even in the stricter sense might have been termed a work of art, not less precious because the words vanished into air, a joy for the instant and not for ever, always to be vaguely remembered and vainly regretted.

And again it will be objected that we do not find beauty only in works of art, or at large in the spiritual creation of men, but in nature as well. An exhaustive answer to this objection would require a full discussion of the relations between spirit and nature as they are seen by philosophical idealism. I have already given before some hints on

this subject; but now I will simply ask any one who has been traveling, I will not say in quite unknown lands but in rather unfrequented spots, whether he has not felt, when discovering beautiful landscapes to which the attention of travelers had never been called before, the same exaltation given by any sort of spiritual activity. He was conscious that this new beauty had not been there before, but that he was creating it by casting on it an artist's eye. The trees, the hills and the mountains, the river and the waterfalls, the green of the meadows and the blue of the sky, are mere sensual *stimuli*; but the beauty of the landscape is as much an esthetic production when seen in nature as when it is admired in a picture. People have looked at the Umbrian landscape, for instance, for centuries, but who *saw* it before Perugino? They have looked at sunsets for thousands of years, but who *saw* them before Turner?

I think some of you may remember that Oscar Wilde wrote what are perhaps his best pages on this subject, although he felt bound to affirm, *pour épater le bourgeois*, that impressionist painting had worked striking changes in the climate of London. The simple truth is that we can to-day enjoy with a keen esthetic pleasure weather that would have been for our fathers nothing more than an awful physical nuisance. The attitude of man toward natural beauty, says Croce in one of the few poetical images that interrupt his clear logical prose, is like that of Narcissus at the spring.

### III.

Another objection which has been raised against Croce's theory of art as pure intuition, is that it reduces art to a mere form of knowledge, while what we look for in works of art is the feeling, movement, life and personality of the artist—what we may briefly call the lyrical character inherent in all works of art. The objection is a very

serious one, and if accepted it would shake the foundations of any monistic or idealistic esthetics like Croce's. It would revive the theory of content and form considered, not as they really are as two abstract views of the same fact, but as elements actually concurring with equal power in the production of this fact. The only possible answer, and a very valid one for those who accept the principles of idealism, consists in showing that pure intuition and lyrical character are the same thing, that where the one is the other too will always be found. Pure intuition is knowledge, but not in the mechanical sense given to this word by sensists; it is knowledge as spiritual activity, as creation, and not as mere receptivity or formal association of images. And this sort of activity manifests itself necessarily in lyrical form. What we seek in the works of art is not the empirical personality of the artist, but the *δύναμις* of his personal esthetic activity, always new and unmistakably his own. We are here very near to Hanslick's famous theory of music as the expression not of any definite feeling, but only of the *δύναμις* of human feeling. But what Hanslick thought was true for music only is really true for all art. I think it can be said that the true element of art in any work of art is given by rhythm, be it temporal rhythm as in music and poetry, or rhythm of space and form as in painting, sculpture and architecture. We can translate a poem into reasonable prose or into another language, but then the poem is gone. What we call the music of a poem is the poem itself, and our translation will be nothing but a new poem, probably a worse one, suggested by the first. This may seem rather paradoxical at first sight, but then, is there anybody prepared to maintain that the greatness of Dante's "Paradise" arises from his theology rather than from his poetry? We must choose between these two clearly defined positions. Here

again beauty cannot be anything but lyrical beauty, or beauty of expression, which are one thing.

Only, when I talk of rhythm, in poetry for instance, I wish it to be clearly understood that I have not in my mind any prosody or metric. Metrical schemes are pure abstractions, comparable to the idea of species in biology. But the actual life of rhythm is to be found only in this or that line, in this or that definite grouping of vowels and consonants, accents and pauses; we literary people are very apt to forget the real character of the operations of our minds, and we talk of irregular lines whose beauty is derived from a kind of reaction to the ideal scheme of a certain line. It is a fault of the same kind as the one we have seen before when talking of the relation of ideal beauty to art. We take the shadows for living bodies. There are no irregular lines, but only concrete rhythms that we must feel and study, and if a line does not suit the scheme we must remember that the line is always right because it is a reality, and the scheme is always wrong because it is nothing but an abstraction. And I cannot conceive how the beauty of something that has a real existence for itself could be dependent upon its relation with something else that has no existence at all.

This point of view that we criticise in metric or prosody is the same that dominates many so-called literary sciences and gives birth to rhetorical categories and *genres* of literature. Such categories and *genres* are of the same kind as metrical schemes; they are quite legitimate instruments of work as long as we do not forget that there does not exist anything like the idea of tragedy apart from all concrete tragedies, and as long as we do not condemn a new tragedy simply because it is not a bit like the old ones. Every new work of art, far from being bound to obey fixed laws, establishes new laws or, better, has its own law. It must, and will, answer only for itself, and the only claim

that we can put upon it is that of absolute internal coherence.

Again and again, wherever we find rules and types and categories, if we try to get at the heart of things we realize that they are mere shadows and that the only law is that of absolute individuality in art as well as in language. Even phonetic laws are not an exception; we do not obey phonetic laws when speaking, but only the law of the esthetic spirit that makes us find a new expression for every new intuition. It is a common saying in physiology that the function makes the organ and not *vice versa*; and it would be absurd to pretend that the contrary is true when the function is, as in this case, a psychical one. Phonetic laws are merely descriptive summaries of observed facts, and we miss totally the real meaning of the evolution of language when we see it only as a play of mechanical actions and reactions, forgetting the original creative activity of which such actions and reactions are modes and phenomena. In fact I think that many of the criticisms made by men like Driesch and Bergson to some now surpassed biological conceptions, would preserve all their value when applied to that form of pure philology which is represented by the idolatry of phonetic laws. I should like to mention on this subject the work of a German disciple of Croce, Prof. Karl Vossler of Munich, and remind those who may be alarmed by this revolution in philology, that a discussion on the foundations of a certain science need not produce any changes in the body of the science itself. Only, it is always desirable that a man should know what is the nature of the work he is doing.

#### IV.

If the ideas we have expressed are accepted, the principles a literary critic must always bear in mind are those of the absolute spirituality, individuality and autonomy of

art. These principles, which seem to be three and really are one and the same, will give to literary criticism and to its various branches that unity and organism which for so long a time have been sought for in vain.

As to the first, we must remember the comprehensive formula of one of the greatest predecessors of Croce, Friedrich Schleiermacher: *Das innere Bild ist das eigentliche Kunstwerk*, "the internal image is the real work of art." Those portions of material substance that we call works of art have their only real existence in the spirit who created them and in the spirits who know them by a similar process of creation. Technique is nothing, unless we understand by technical handling of an artistic subject the same artistic production, the succession and progression of intuitions in the artist's mind. No poet can correct a word in his poem, no painter change a line or a shade in his picture if *das innere Bild* has not first spontaneously undergone such corrections or changes in his mind. There is not first a technical standpoint, and after that an esthetical one in the study of art; the painter who learns the first elements of drawing, the poet who exercises himself in the treatment of verse and rhyme, are as yet working in the same sphere of spiritual activity out of which the masterpiece will later on spring forth. And no more are there two different points of view in criticism, but only one: and this consists in the new creation, through the material documents of a former act of life, of the original *innere Bild*. The critic must lend the life of his own spirit to the world that had once existed in the spirit of the poet. And of a poet's world we can really talk, not only in the case of those poets of Æschylean type who see the life of man in a superior sphere of ideal reality, be it a moral or a religious or a merely imaginative one, but for those of Shakespeare's family as well, whose men are the men we meet in this world, because this world is, at least in the poet, an ideal



one and absolutely his own, and no parts of his work can be seen except by the light of his spirit. Reality for itself is blind, but when known it is, and cannot be other than, ideal. This is what I call the critic's respect for the artist's individuality. The critic who reduces the poet's world to terms of his own limited, empirical world, violates and disintegrates it, and will never be able to understand it. In this sense we can say that a good critic must be an objective one, that he must look for the poet behind his work and see the work in the light in which it was born.

To this first and last operation of the critic's mind all sorts of literary study and research must be subordinated. The historical and philological study of literature is the necessary preparation to the critical intuition. But without the former the latter is not even possible. A critical intuition is an historical judgment, and therefore literary criticism and literary history are one thing. Literary history is a history of manifestations of esthetic activity, and many books and researches that go under this name do not belong to it in the least. Let us take the instance of the Elizabethan drama. The question whether Elizabethan drama has sprung from miracle-plays and moralities is a problem of *Kulturgeschichte* and not of literary history. A book like Ch. W. Wallace's on the *Evolution of the English Drama* is only a research into the development of theatrical institutions, and the literary critic may read it to see if perhaps some of the conditions under which the poets of Shakespeare's age worked may have had some influence on the quality of their work. But no history of external institutions and conditions can explain the substance of the work itself, and the same might be said of all researches of sources, of all studies of comparative literature. We are on the threshold of literary history, but literary history is something else. Culture is, in fact, and must be studied

as being, mechanical continuity and relation of times, but art is active originality and creation of a new time.

## V.

I wish only to say a few words more on the autonomy of art, because this is the concept that helps us best in distinguishing what is art from what is not. We have seen what are the relations of the esthetical function to the logical one; and everybody knows that a poet who syllogizes is no longer a poet, in the same way that a drama with a thesis is, we know it beforehand, a tedious drama. It is the intrusion of intellectual or moral or practical interests which accounts for failure in art. The sincerity of an artist is not the same as moral sincerity as there is no place in art for truth and falsehood, but only his faithfulness to his pure and real intuitions. This means that intellectual and moral and practical interests can converge in a work of art, but the esthetical activity must completely dominate them and reduce them for its own ends. Otherwise they will be there as dead wood not yet kindled by the creative spark into the flame of life. And the value of the intuition as such does not depend in the least upon the value of the intellectual or moral content: it is not an intellectual or moral value.

There are, of course, many well-meaning people who will never admit that a work of art can be beautiful whose content is immoral. They will tell you that they cannot divide their life into compartments. I shall only observe that there is an enormous difference between the man who leads an animal life and the man who sings the ideal of animal life; the brute has opened his human eyes, and entered into the first light of spirituality. But then I think we do divide our life into compartments; and when I talk to a child, for instance, I am not the same as when I am, unfortunately for my hearers, delivering a lecture. And

yet, I do not think that this means being dishonest. It is simply an operation which is necessary if we want to understand and to be just, and the literary critic must not put the judges out of office. Only we must remember that these compartments are ideal compartments and life remains a deep, indisruptible unity.

No man is empirically a mere poet, no man a mere philosopher; but when we are discussing poetry or philosophy, let us give to Cæsar what is Cæsar's and to God what is God's. And poets are, in the ideal history of mankind, those divine children to whom we know that great reverence is due, and the welcome of a smiling heart.

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## THE FUNDAMENTAL LAWS OF ARITHMETIC: PSYCHOLOGICAL LOGIC.<sup>1</sup>

[This article on psychological logic continues the translation of the Preface of Professor Frege's *Grundgesetze*, of which the first part was published in *The Monist* of October, 1915. This part is divided from the first part by the note: "Mathematicians who do not care to study the mistakes of philosophy are recommended to break off here their reading of the Preface."]

FROM the leading current presentations of logic I cannot hope for approval of the distinction that I make between the *characteristic* (*Merkmal*) of a concept and the *property* (*Eigenschaft*) of an object,<sup>2</sup> for these presentations seem to be thoroughly infected by psychology. If we consider instead of things themselves their subjective images—our own notions or presentations (*Vorstellungen*)—all the more delicate distinctions in the things themselves naturally are lost, and others appear instead which are logically quite worthless. And this brings me to what I have to say regarding the factors which prevent my book from having an effect on logicians. It is the injurious invasion of logic by psychology. The conception of logical laws must be the decisive factor in the treatment of logic, and that conception depends upon what we understand by the word "true." It is generally admitted at the very beginning that logical laws must be rules of conduct to guide

<sup>1</sup> [Translated by Johann Stachelroth and Philip E. B. Jourdain.]

<sup>2</sup> In the *Logik* of Benno Erdmann I find no trace of this important distinction.

thought to truth; but this admission is only too easily forgotten. The double meaning of the word "law" is here fatal to clearness of thought with most people. In one sense law says what is, and in the other it dictates what must be. Logical laws can only be called "laws of thought" in the latter sense; they lay down how we must think. Every law that says what is may be understood as dictating that we are to think in conformity with it and is in this sense a law of thought. This holds good in geometry and physics as well as in logic. Logical laws deserve the name "laws of thought" with more right than these other scientific laws only if we wish to express by the name that they are the *most general* laws in that they dictate how we must think whenever we think at all. But the phrase "law of thought" leads people to believe that thinking is governed by these laws in the same way that laws of nature govern events in the world around us. In that case they would be psychological laws, for thinking is a psychical process. But if logic had to deal with psychological laws it would be a part of psychology; and indeed it is sometimes viewed as a part of psychology. These laws of thought are in that case looked upon as rules of conduct in the sense that they indicate the average; just as we may say that healthy digestion takes place in man, or that people speak grammatically, or that people dress in fashion. And then we can only say that what men believe on the average to be true thought, at present and as far as human beings are known to us, is conducted according to these laws. Consequently if we wish to agree with the average man we must think according to these laws. But just as what is modern today will not be modern after some time and even now is not modern with the Chinese, we can set up psychological laws of thought only under limitations of space and time. Such would be the case if logic were concerned with the growth of our opinions on truth and not with truth itself.

These two matters are what psychologizing logicians confuse with one another. Thus Benno Erdmann, in his *Logik*,<sup>3</sup> defines truth as general validity (*Allgemeingültigkeit*), founds this general validity on general certainty of the object about which we judge (*Allgemeingewissheit des Gegenstandes, von dem geurtheilt wird*), and founds this certainty on the general agreement of those who judge. Thus the truth is finally reduced to what the individual supposes to be true. To that I can only reply that the fact of being true (*Wahrsein*) is different from the fact of being regarded as true (*Fürwahrgehaltenwerden*), that it does not matter whether the fact is so regarded by one or by many or by everybody, and that what is true cannot be reduced to it. There is no contradiction in something being true though everybody thinks it to be false. I do not understand by "logical laws" psychological laws of belief, but laws of truth. If it is true that I write this in my room on July 13, 1893, while the wind is howling outside, it remains true even though everybody think it false. If, thus, being true is independent of the truth being acknowledged by some one, then the laws of truth are not psychological laws, but boundary stones on an eternal foundation which may be inundated by our thought but are not movable. And because they are immovable they are important for our thought if it wishes to get at the truth. They do not stand in the same relation to thought as grammatical laws to language; they express the essence of our thought and change with it.

Quite different from this is Erdmann's conception of logical laws. He doubts their absolute and eternal validity, and wishes to limit them to our thought as it is now.<sup>4</sup> "Our thought," I suppose, can only be the thought of human

<sup>3</sup> Halle a. S., 1892, Vol. I, *Logische Elementarlehre*, pp. 272-275. [A second edition of this volume appeared in 1907.]

<sup>4</sup> *Ibid.*, pp. 375 ff.

beings known up to the present time. For there would remain the possibility of discovering human or other beings who could execute sentences contrary to our laws. Suppose that were to happen, then Erdmann would say: "Here is the proof that those fundamental laws do not hold good everywhere." If they are psychological laws, their verbal expression must make known the species of beings whose thought is found by experience to be governed by them. I would say: "There are therefore beings which do not immediately recognize certain truths as we do, but which are perhaps obliged to take the lengthier road of induction." But what if beings were found whose laws of thought were absolutely in opposition to ours and consequently often led in applications to contrary results? The psychological logician could only assent to the fact, and say: "With them the former laws apply and with us the latter." I would say: "Here we have a hitherto unknown kind of madness." Whoever understands by "logical laws" laws which dictate how thought must be guided, i. e., laws of truth and not natural laws of human belief, will ask: "Who is right? Whose laws are in accord with the laws of truth?" The psychological logician cannot ask such a question; for it would mean that he recognized laws of truth which are not psychological. It is hardly possible to falsify the meaning of the word "true" more grossly than by referring to the judge. It is not to the point to object that the remark, "I am hungry," may be true for one and false for another. The remark may be so, but not the thought, for the word "I" in the mouth of another refers to a different being, and therefore the above remark in another person's mouth expresses a different thought. All determinations of place, of time, and so on, belong to the thought whose truth is in question; the truth itself is not subject to place or time. How then does the principle of identity run? Shall we say thus: "In 1893 it is impossible



for human beings to admit that an object may be different from itself"; or thus: "Every object is identical with itself"? The former law treats of human beings and contains a determination of time; in the latter law there is no mention of human beings nor of a time. The latter is a law of truth; the former is one of human belief. Their contents are altogether different, and they are independent of each other, so that one cannot be deduced from the other. It is therefore very confusing to designate both by the same name, "principle of identity." Such mixtures of altogether different things are the cause of the awful confusion which we meet in the doctrines of psychological logicians.

The question why and with what right we recognize a logical law to be true, logic can only answer by reducing it to other logical laws. Where that is not possible, logic can give no answer. Leaving aside logic for a moment, we may say that we are obliged by our nature and outer circumstances to form judgments, and if we judge we cannot reject this law—the law of identity for instance. We must recognize it if we do not wish to bewilder our thought and at last abandon all judgment. I will neither dispute nor try to confirm this opinion, and will merely observe that we have here no logical implication. There is given merely a ground for supposing it to be true and not for its being true. Moreover the fact that we find it impossible to reject the law spoken of does not prevent us from supposing the existence of beings who reject it; but it prevents our supposing that their views are correct with regard to that point. It also prevents our doubting whether we or they are right. That at least is true of myself. If others should dare to accept and to doubt a law in the same breath, they would give me the same impression as if they were trying to jump out of their skins, and I would urgently warn them against such an attempt. He who has once accepted a law of truth

has, by that very fact, accepted a law which dictates how a judgment is to be made, no matter where or when or by whom.

If I review the whole matter it seems to me that different conceptions of the truth are the origin of the controversy. I look upon truth as something objective and independent of the person who judges. It is not so according to the psychological logicians. What Erdmann calls "objective certainty" is only a general acknowledgment proceeding from those who judge, and which therefore is not independent of them but may change with their psychical nature.

We can generalize this still more. I acknowledge an objective domain which is not a domain of actual things; while the psychological logicians, without more ado, look upon the non-actual as subjective. And yet it is impossible to see why that which has a value independent of the person who judges must be actual, that is to say must be capable of a direct or indirect action upon the senses. Such a connection between the ideas is not to be discovered. We can even quote examples which show the contrary. The number 1, for instance, cannot easily be thought actual, unless indeed we are disciples of John Stuart Mill. It is impossible, on the other hand, to assign to each person his number 1; for then we would have to inquire how far the property of these units agrees. And if one person says "once 1 is 1," and another "once 1 is 2," we could only state the difference and say: "Your 1 has one property and mine another." There could be no question of a quarrel as to who was right nor of making an attempt to teach; since there is no common object. Evidently this is quite contrary to the meaning of "1" and the sentence "once 1 is 1." Since the number 1, as being the same for everybody, appears to everybody in the same manner, it can no more be investigated by psychological observations than the

moon can. Whatever notions there may be of the number 1 in different minds, they must be distinguished from the number 1 just as the notions of the moon must be from the moon itself. Because the psychological logicians deny the possibility of the objective non-actual, they suppose concepts (*Begriffe*) to be notions or presentations (*Vorstellungen*) and assign them to psychology. But the weight of truth is too great for this to be easily practicable. And hence comes an indefiniteness in the use of the word "notion;" at times it seems to denote something which belongs to the psychical life of each separate individual and which amalgamates with other notions and associates with them according to psychological laws; and at times it seems to denote something which faces everybody in the same way and in which a person who has a notion of it is neither mentioned nor even tacitly supposed. These two kinds of usage of the word are incompatible with each other; for those associations and amalgamations only occur in particular individuals and with something that belongs to these individuals particularly, such as their joy and pain. We ought never to forget that the notions of different individuals, no matter how much they resemble one another,—and this, by the way, we are unable to ascertain satisfactorily,—do not coincide but are to be distinguished from one another. Every one has notions of his own which are not those of others. Here of course I understand "notion" in a psychological sense. The indeterminate use of this word causes confusion and helps the psychological logicians to hide their weakness.

When will this confusion stop? Everything is finally drawn into psychology; the boundary line between objective and subjective disappears more and more, and even actual objects are treated psychologically as notions. For what is *actual* but a predicate? And what are logical predicates but notions? Thus everything drifts into idealism

and then quite logically into solipsism. If every one denoted something different by the word "moon," namely one of his notions, much in the same way that he would express his pain by the exclamation "oh," the psychological manner of consideration would of course be justified; but a dispute about the properties of the moon would be to no purpose. One person might quite well assert the contrary about his moon to what another person could say with the same right of his. If we could not grasp anything else but what is in ourselves, a conflict of opinions and a mutual understanding would be alike impossible, because there would be no common ground; and such a common ground cannot be formed by a notion in the sense of psychology. There would be no logic capable of being judge in a dispute of opinions. That I may not seem to be fighting against windmills, I will take a definite book and show in it the inevitable sinking of psychological logic into idealism. I choose for that the above-mentioned logic of Erdmann, as it is one of the most recent works of the psychological school and is not likely to be denied all importance. Let us look at the following sentence:<sup>5</sup>

"Thus psychology teaches with certainty that the objects of recollection and imagination as well as those of the notions of morbid hallucinations and illusions are of an ideal nature. . . . Furthermore the whole realm of mathematical notions properly so called, from the series of numbers to the objects of mechanics, are ideal.

In this strange collection the number 10 is actually put on the same level as hallucinations. Here evidently that which is objective and not actual is mixed up with what is subjective. Some objective things are actual, others not. *Actual* is only one of many predicates, and has no more to do with logic than the predicate *algebraic* has to do with a curve. Of course through this confusion Erdmann gets

<sup>5</sup> *Ibid.*, Vol. I, p. 85.

mixed up with metaphysics, however much he tries to keep away from it. I hold it to be a sure sign of error if logic needs metaphysics and psychology, sciences which themselves must have a foundation of logical propositions. Where then is the ultimate basis upon which everything rests? Or is Erdmann's case similar to that of Münchhausen who pulled himself out of the mire by his own hair? I doubt very much the possibility of this Münchhausen-like process even in logic, and suspect that Erdmann will remain in the mire of psychological metaphysics.

There is no objectivity, properly speaking, for Erdmann; for everything is notional with him. Let us convince ourselves of this by his own statements:

"To form a relation between things of which we have notions (*Vorgestelltes*) the judgment needs at least two points of reference between which it takes up its position. As a *statement* about notions (*Vorgestelltes*), it demands that one of these points of reference should be determined as the thing (*Gegenstand*) about which the statement is made, the subject, and the second as the thing which is stated, the predicate."<sup>6</sup>

We see here first of all that both the subject of which something is said, and the predicate, are called objective things (*Gegenstände*) or things of which we have notions (*Vorgestelltes*). Instead of "the thing" might better have been written "the thing of which we have a notion"; for we read: "For things are things of which we have notions."<sup>7</sup> But *vice versa* everything of which we have a notion is also to be a thing: "According to its origin a thing of which we have a notion is either, on the one hand, an object of sense-perception or of self-consciousness, and on the other hand it is either original or derived."<sup>8</sup> What arises from sense-perception or from self-consciousness is certainly of a psychological nature. Things, things of which we have

<sup>6</sup> *Ibid.*, p. 187.

<sup>7</sup> *Ibid.*, p. 81.

<sup>8</sup> *Ibid.*, p. 38.

notions, and hence subject and predicate, are thus assigned to psychology. This is confirmed by the following passage:

"That of which we have a notion (*das Vorgestellte*) and the notion (*die Vorstellung*) are the same thing: the thing of which we have a notion is the notion, and the notion is the thing of which we have a notion."<sup>9</sup>

The word "notion" is usually taken in a psychological sense; that that is also Erdmann's custom we can see from the following passages: "Consciousness is thus the general concept where corresponding particulars are forming notions and willing";<sup>10</sup> "the forming of notions is composed of notions. . . . and the courses of notions (*Vorstellungsverläufen*)."<sup>11</sup> After this we must not be surprised that an object comes into existence in a psychological way: "As far as a mass of perceptions. . . . offers the same to former excitations and to the stimuli released by them, it *reproduces* the residues of memory which descend from that sameness of former excitations and *amalgamates* with them to form the object of the apperceived notion."<sup>12</sup> On the next page is then shown, as an example, how a steel-engraving of Raphael's Sistine Madonna is made in a psychological way without steel-plate, ink, press, or paper.

After all this there can be no possible doubt but that the object spoken of, the subject, is supposed by Erdmann to be a notion in the psychological sense of the word, as is also the predicate, the thing which is said. If that were so we would never be able to say truthfully of an object that it is green; for there are no green notions. Neither would I be able to say of a subject that it is independent of having a notion formed of it, or of myself as one who forms a notion of it, any more than that my decisions are independent of my will and of myself, the willer; but they would be destroyed with me if I were destroyed. In conse-

<sup>9</sup> *Ibid.*, pp. 147-148.

<sup>11</sup> *Ibid.*, p. 36.

<sup>10</sup> *Ibid.*, p. 35.

<sup>12</sup> *Ibid.*, p. 42.

quence of this there is no objectivity proper for Erdmann, as also results from the fact that he posits the thing of which we have a notion or the notion in general—the *thing* in the most general sense of the word—as the *summun genus*.<sup>13</sup> He is therefore an idealist. If the idealists thought logically they would consider the sentence, “Charlemagne conquered the Saxons,” to be neither true nor false, but a fiction, just as we are in the habit of considering, say, the sentence, “Nessus carried Deianeira across the river Euenus.” For the sentence, “Nessus did not carry Deianeira over the the river Euenus,” could only be true, if the name “Nessus” was borne by somebody. It would not be easy to move the idealist from this point of view. But we need not put up with the falsification of the meaning of the sentence arising from assuming that I wanted to say something about my notions when I spoke about Charlemagne; I simply meant to indicate a man independent of myself and my notions and to make a statement about him. We may grant to the idealists that the attainment of this intention is not quite certain and that perhaps in my attempt I may stray unintentionally from the truth into fiction. But by that nothing can be changed in the sense. By the sentence, “This blade of grass is green,” I express nothing about my notions; I indicate none of my notions by the words, “This blade of grass.” If I did so the sentence would be false. There now enters a second falsification, i. e., that my notion of green is expressed by my notion of this blade of grass. I repeat: In this sentence there is no question whatever about my notions; that meaning is wholly due to the idealists. By the way, I fail absolutely to understand how a notion of something can be expressed. It would be just such a falsification to say that in the sentence, “The moon is independent of myself and my forming notions,” my notion of independence of myself

<sup>13</sup> *Ibid.*, p. 147.



and my forming notions would be expressed of my notion of the moon. With that the objectivity proper would surely be rejected and something quite different put into its place. No doubt it is possible that, in judging, such a play of notions occurs; but that is not the meaning of the sentence. Observe that with the same sentence and the same meaning of the sentence the play of notions may be quite different. And it is this logically indifferent accompanying appearance that our psychological logicians take for the real object of research.

As may be easily understood, the nature of the matter militates against any sinking into the mire of idealism, and Erdmann would not like to admit that for him there is no objectivity proper. But we can just as easily understand the fruitlessness of this effort. For if all subjects and all predicates are notions, and if all thinking is nothing but the producing, connecting, and changing of notions, it is impossible to conceive how on earth we arrive at anything objective. A sign of this vain struggle is the use of the words, "a thing of which we have a notion," and "an objective thing," which at first might seem intended to indicate something objective in opposition to notions. But the words only *seem* to do this, for we have seen that they denote the same thing. Why then this superfluity of expression? That is not difficult to guess. We must notice that an object of our notions is spoken of, though the object is supposed to be itself a notion. Thus it would be a notion of a notion. What relation of notions is meant by this? Though this is obscure, it is quite comprehensible how, from the conflict between the nature of the matter and idealism, such whirlpools can arise. Everywhere here we see the object of which I make a notion for myself confused with the notion, and then we see the difference stand out again. We see this conflict also in the following sentence: "For a notion whose object is general is therefore, as such,

as a process of consciousness, as far from being general as a notion is itself real because its object is posited as real; or as an object which we perceive. . . . to be sweet is given by notions which are themselves sweet."<sup>14</sup> Here the real truth asserts itself. I could almost agree with that. But if we notice that according to Erdmann's principles the objects of which we have notions and the objects which are given by notions are notions themselves, we see that all our straining for agreement must be in vain. I also beg my readers to remember the words "as such" which appear similarly just before the last passage: "Where the actuality of a thing is stated, the subject of this judgment is not the object or the thing as such of which we have a notion, but on the contrary the *transcendental* which is presupposed as the basis of the being of this 'thing of which we have a notion' and is represented in the latter. The transcendental is not to be looked upon as the unknowable. . . . but its transcendence is only to consist in the independence of the process of forming a notion (*Vorgestelltwerden*)."<sup>15</sup>

This is merely another vain attempt to work himself out of the mire. If we take the words seriously, they form a statement that in this case the subject is not a notion. But if this is possible it is not clear why with other predicates which indicate special modes of activity or actuality the subject must be a notion,—for instance in the judgment, "the earth is magnetic." And so we would arrive at the opinion that only in a few judgments the subject is a notion. But if it is once admitted that it is not essential for either the subject or the predicate to be a notion, the foundation is pulled away from underneath the whole of psychological logic. All the psychological considerations of which our books on logic are full just now turn out then to be irrelevant.

But I dare say we must not take the transcendence with

<sup>14</sup> *Ibid.*, p. 86.

<sup>15</sup> *Ibid.*, p. 83.

Erdmann quite seriously. I only need to remind him of his declaration:<sup>10</sup> "The *metaphysical* limit of our ideation (*Vorstellens*), the transcendental, is also subordinate to the *summum genus*," and with that he founders; for his *summum genus* is what we have a notion of, or is notion in general. Or should the above word "transcendental" be used in a different sense? In every case, we are to think, the transcendental is subordinate to the *summum genus*.

Let us reflect a little about the expression "as such." I will suppose that somebody wants to make me imagine that all objects are nothing but pictures on the retina of my eye. Very well, I have no objection to make so far. But now he asserts that the tower is bigger than the window through which I suppose that I am seeing it. To this I would say: "Either the tower and the window are not both pictures on the retina of my eye—in which case the tower may be bigger than the window; or the tower and the window are, as you say, pictures on my retina—in which case the tower is not bigger but smaller than the window." Now he tries to extricate himself from the dilemma by using the words "as such," and says: "The picture of the tower on the retina as such is indeed not bigger than that of the window." At this point I would almost like to jump out of my skin and shout at him: "Well then, the picture of the tower on the retina is not bigger than that of the window, and if the tower were the picture of the tower and the window the picture of the window, then the tower would not be bigger than the window, and if your logic teaches you differently it is not worth anything." This "as such" is an excellent discovery for writers who are not clear in their statements and who do not want to say either yes or no. But I am not going to put up with this hovering between the two, and I ask: "If actuality is predicated of a thing, is the subject of the judgment the notion? An-

<sup>10</sup> *Ibid.*, p. 148.

swer me yes or no." If it is not, then it is, I suppose, the transcendental which is presumed to be the basis of the being of this notion. But this transcendental is itself notional (*Vorgestelltes oder Vorstellung*). Thus we are driven to the supposition that the ideated transcendental is not the subject of the judgment but the transcendental which is presumed as the basis of the being of this ideated transcendental. Thus we would have to keep on continually, but however far we go we never should get out of the subjective. We might begin the same game with the predicate, and not necessarily with the predicate *actual* but, say, with *sweet*. We would then say: "If we speak about the actuality or the sweetness of a thing the predicate is not the ideated actuality or sweetness but the transcendental which is supposed to be the basis of the being of this ideation." But we could not rest there; we would be driven on and on. What can we learn from this? That psychological logic is mistaken if it thinks that the subject and predicate of judgments are notions in the sense of psychology, and that psychological considerations are as out of place in logic as in astronomy or geology. If we wish to get out of the subjective, we have to conceive knowing as an activity which does not create what is known but which grasps what already exists. The illustration of grasping is very well fitted to elucidate the matter. If I grasp a pencil, many different things take place in my body: excitations of the nerves, changes of the tension and the pressure of the muscles, sinews, and bones, and changing of the motion of the blood. But the totality of these processes is neither the pencil nor does it create the pencil. The pencil exists independently of these processes, and it is essential for the fact of grasping that there is something to be grasped; it is not our internal changes which alone make up the grasping. In the same way, what we grasp mentally is independent of those notions and their changes that be-

long to or accompany this grasping. What we grasp is neither the totality of these processes nor is it created by this totality as part of our psychical life.

Let us now see how the finer distinctions in the subject-matter of logic become obliterated in psychological logic. This has already been referred to above when we spoke of *characteristic* and *property*. With this is connected the distinction of *thing* or *object* (*Gegenstand*) and *concept* (*Begriff*) emphasized by myself, and that of concepts of the *first and second stage* (*Stufe*). These distinctions are of course indiscernible to the psychological logician; with such logicians everything is just notion. They have not got the right conception of those judgments which we express by "there is." This existence is confused by Erdmann<sup>17</sup> with actuality, which, as we have seen, is not clearly distinguished from objectivity. Of what things do we assert that it is actual when we say that there are square-roots of 4? Is it 2 or  $-2$ ? But neither the one nor the other is mentioned here in any way. And if I were to say that the number 2 acts or is active or actual, it would be false and quite different from what I mean by the sentence "there are square-roots of 4." The confusion here under consideration is nearly the grossest possible; for it is not one between concepts of the same stage, but a concept of the first stage is confused with one of the second stage. This is characteristic of the dullness of psychological logic. When we have arrived at a somewhat broader standpoint we may be surprised that such a mistake could be made by a professional logician; but we must have grasped the distinction between concepts of the first and second stages before we can estimate the magnitude of the error spoken of, and psychological logic cannot do that. Here what most stands in the way of psychological logic is that its exponents think such a lot of psychological depth, which is

<sup>17</sup> *Ibid.*, p. 311.

after all nothing but a psychological falsification of logic. And that is how our thick books of logic come to be; they are puffed out with unhealthy psychological fat which conceals all finer forms. Thus a fruitful collaboration of mathematicians and logicians is made impossible. While the mathematician defines objects, concepts, and relations, the psychological logician watches the becoming and changing of notions, and at bottom the defining of the mathematician must appear only foolish to him because it does not reproduce the essence of ideation. He looks in his psychological *camera obscura* and says to the mathematician: "I cannot see anything at all of what you are defining." And the mathematician can only reply: "No wonder, for it is not where you are looking for it."

This may be enough to put my logical standpoint, by way of contrast, into a clearer light. The distance between my point of view and that of psychological logic seems to me so very great that there is no prospect of my having at present any influence through my book upon psychological logic. It seems to me that the tree planted by me would have to lift an enormous weight of stone in order to gain room and light for itself. Nevertheless I would not like to give up all hope that my book may later on help to overthrow psychological logic. As a step toward this end, my book will not, I hope, be quite unnoticed by mathematicians, so that mathematicians will have to come to terms with it. And I believe that I may expect some help from that quarter; for mathematicians have at bottom a common cause with me against the psychological logicians. As soon as mathematicians condescend to occupy themselves seriously with my book, if only to disprove it, I believe I have won. For the whole of the second part is really a test of my logical convictions. It is improbable that such an edifice could be erected upon an unsound base. Those who have other convictions have only to try to erect a similar construction

upon them, and they will soon be convinced that it is not possible or at least is not easy. As a proof of the contrary, I can only admit the production by some one of an actual demonstration that upon other fundamental convictions a better and more durable edifice can be erected, or the demonstration by some one that my premises lead to manifestly false conclusions. But nobody will be able to do that. May my book then, even though it comes rather late, contribute to a revival of logic.

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## THE VEDANTIC APPROACH TO REALITY.

PHILOSOPHY is the attempt to think out the pre-suppositions of experience, to grasp, by means of reason, life or reality as a whole. It seeks to discover a rational explanation for the universe—an explanation which gives to all parts, nature, God and man, their due, views all things in their right proportion and resolves the contradictions of experience. The search for such a solution is the problem of philosophy. The answer should be something in which reason can finally rest. Philosophy has to find out an all-comprehensive and universal concept which itself requires no explanation, while it explains everything else. It must be the ultimate reality into which all else can be resolved and which cannot itself be resolved into anything else. Philosophy is the theory of reality if by reality we mean something that exists of itself and in its own right and not merely as a modification of something else. The test of a philosophical theory is, then, its capacity to coordinate the wealth of apparently disconnected phenomena into an ordered whole, to comprehend and synthesize all aspects of life, reality or experience; for is not the philosopher the spectator of all time and all existence?

Attempts to solve the problem of philosophy generally start from inadequate conceptions which lead us on to more adequate ones through their own inner logic. We start with some part of the whole, some conception which accounts for a portion of our experience, and soon mistake it for the whole or the final explanation of things. We are surprised with contradictions and inconsistencies, which

condemn the theory as an inadequate solution of the riddle of the universe. The mechanical principles of the physical sciences are of great use and value in the region of inanimate nature, but so soon as we apply them to other fields of reality, say animal life, they confess themselves to be bankrupt. Their poverty becomes patent and we, on the basis of these notions and their inadequacies, progress to more concrete and definite theories. Philosophy passes in review the different conceptions which claim to represent the universe, and tests their varying fulness and worth. Philosophy, in this sense, is a criticism of categories. We start with a lower category, criticize it, discard it as incomplete and progress to a higher one where the lower receives its fulfilment. Philosophy, then, is a progressive discovery of reality or defining of reality in terms of fundamental conceptions or categories, or a gradual passage from lower, more abstract and indefinite conceptions, to higher, more concrete and definite ones.

The Vedanta thinkers sometimes approach the problem of philosophy from this standpoint. If we turn to Chapter III of the Taittiriya Upanishad we see there a progressive revelation of the true nature of reality to the seeking mind. The absolute is identified first with one thing, then with another, until we reach a solution which stifles all doubt and satisfies all inquiry by its freedom from discord and contradiction. We here propose to sketch in modern terms the picture of the world as it appeared to those ancient seekers after truth.

The discussion about the nature of reality is in the form of a dialogue between father, Varuna, and son, Bhrigu. The son approaches the father, entreating him to teach him the nature of reality. The father mentions the general characters or the formal aspects of the Absolute known in the Vedanta philosophy as *Brahmam*. It must be something which includes everything else. It is that by which the

whole universe is sustained. "That from whence these beings are born, that by which when born they live, that into which they enter at their death; try to know that. This is *Brahmam*" (Taittiriya Upanishad, Chap. III, 1). The ultimate reality is that in which we live, move and have our being. It is the whole or the totality. "It includes all the world"; naught exists outside it; "there is nothing else beside it"; it is the *res completa*, that which is complete in itself, determined by itself and capable of being explained entirely from itself. Thus the father describes to the son the general features of reality. He gives him the empty formula and asks him to discover by reflection the content of it. The son proceeds to identify it with one thing after another.

The most immediate datum which may be regarded as *given*, and which strikes our mind at first thought, is the world of relatively unorganized matter. One who does not care to strain his thought to go deeper than surface appearances will be struck with the universality and omnipotence of the material forces. Matter is the basis of life. It is the stuff of which the world is made. So the son pitches upon *Anham*<sup>1</sup> (food, matter) as the content possessing the characteristics of the Absolute already set forth. "He perceived that *Anham* is *Brahmam*; for from *Anham* these beings are produced; by *Anham* when born they live; and into *Anham* they enter at their death" (Taittiriya Upanishad, III, 2).

It is the nature of any partial or abstract theory to transcend itself and thus manifest its inadequacy. Matter, though it accounts for a part of experience, cannot be the final explanation of things. Thought can never rest in it. While materialism is a sufficient explanation of the inanimate portion of reality, it does not account for the living

<sup>1</sup> *Anham* is used as equivalent to "matter." See the Vedanta Sūtras, II, Adhyaya, III, Pada 1, Sūtras 12 and 13. Vidyaranya, referring to a Chandogya passage, says: "Here by *Anham* is meant Earth" or matter.

and conscious aspects of it. If adopted in human affairs it becomes a thoroughly inadequate and false guide. The materialists' picture of the world disregards the specifically human elements of life. The *whole* of experience cannot be identified with this *part* of matter. Our thought rebels against treating parts as wholes. So Bhrigu is convinced that materialism does not effect the unification of reality needed for the Absolute and is therefore not more than a temporary resting place for thought. Dissatisfied with his discovery that matter is the Absolute, he approaches his father for help, and the father asks him to think further. "Desire to know *Brahmam* by reflection" (or deep thought) (Taittiriya Upanishad, III, 2). *Paryalochanam* (reflection) is what the father advises.

The son adopts the advice. Further reflection reveals to him the precise inadequacy of the materialist's theory. In organized matter, the plant world, we come across something to which "matter," though it is the indispensable basis and aid, is not the complete explanation. So this theory of "Matter is *Brahmam*" leaves aside a good deal of the world of existence, while a true theory should cover the whole range of actuality or existence. Mechanical formulas do not account for the life-phenomena. The ultimate reality should be, not matter but something akin to *Prana* (life). "He perceived that *Prana* is *Brahmam*, for from *Prana* these things are born; by *Prana* when born they live; into *Prana* they enter at their death" (Taittiriya Upanishad, III, 3). From this it should not be inferred that the Vedanta philosophy supports a theory of vitalism. That life cannot be completely accounted for on physico-chemical principles is the element of truth exaggerated in theories of vitalism. According to the Vedanta philosophy it is not correct to speak of a sudden revelation of spirit when we come to life, for even matter is spirit, though in its lowest mode of manifestation. It rejects both mechan-

ism and vitalism. We cannot make life mechanical. The world of mechanism is not the same as the world of life. The two are distinct, but the discontinuity between matter and life is not so great as to justify vitalism. The world of mechanism is the medium in which alone life has its being. Though life is not mechanism, still life dwells in it. You find also a tendency to make all mechanism alive. To make life mechanical or mechanism alive is to dissolve the differences in an abstract identity. It would be to sacrifice wealth of content and speciality of service for the sake of symmetry and simplicity. To make mechanism alive would be to deprive matter of its specific function in the universe. Dead mechanism has its own purpose to fulfil, its contribution to make to this wondrous whole. It is therefore not right to reduce unity to identity. We must recognize the difference between the two as much as their unity. The world of matter exists for the purpose of responding to the needs of life. The name *Anham* (food) is advisedly given by the Vedanta philosophers to the principle of matter. Matter exists for the purpose of being *used up* by life. It serves as food for living beings. It is not an alien element, but is something which can be "eaten," controlled and utilized. It is the food which enters into the organic life, the material which the organism uses to build up its body. The authors of the Upanishads make it clear to us that environment, with its necessity, is not a recalcitrant force, not some dark fate over against which we have to knock our heads in despair, but rather the servant of the organism, the helpmate of life and consciousness enabling the growth and perfection of higher beings. In short, life and matter, organism and environment are members existing for each other in a larger whole. They are unintelligible when viewed in separation. "Matter is rooted in life and life in matter" (Taittiriya Upanishad, II, 3). The science of physics, which seeks to divorce matter from life and study

matter in its isolation, studies an abstraction, however useful it may be. The ideal of physical science is an explanation of life in terms of mechanism. Anything which comes in the way of this mechanical ideal is quite unwelcome to physics. Again, if the science of biology concerned itself with life to the exclusion of matter, it would be a science of dead abstractions. What we need is biophysics and physcobiology; they only would do justice to the different aspects and their essential unity. The whole must be seen as a whole if it is to be seen at all. We see then the exact relation of life and matter. The same whole of reality manifests itself first as matter, then as life. The two are but lower and higher expressions of the deeper reality. They are but movements in one grand scheme. Life, being a higher stage than matter, is the completer truth. Life is the promise and potency of matter. Life is the soul and spirit of matter. The Upanishad says of matter that "this *Prana* (life) produced in the body is the soul." So life includes and transcends matter. It is a higher concrete than matter. Matter is a fragmentary abstraction from the point of view of life. The mere externality of matter is transcended and overcome. The parts are no more external to each other but they are elements in an organic whole with a definite end. In the living body the elements cooperate in the preservation of the organism. But even in the living body there is an element of externality which will disappear as we proceed to the next higher category of *Manas* (mind) or consciousness.

The whole world of reality refuses to be squeezed into the category of life. Though *Prana* or life is nearer to reality than matter or mechanism, still it cannot account for the whole of our experience. Life, for instance, cannot account for consciousness. The category of life, failing to embrace the whole of reality, confesses itself to be but a partial truth covering only a limited field of experience.

It cannot therefore be put forward as the ultimate essence or principle of the whole world of reality. Once again the son approaches the father. The father asks him to think to the bitter end without stopping at halfway houses. He pursues his reflection and discovers that the higher forms of life require us to introduce another category to describe their relations. The new factor of consciousness makes its appearance as life develops. *Manas* or perceptual consciousness is the sole reality. "He perceived that *Manas* is *Brahmam*, for from *Manas* these beings are born; by *Manas* when born they live; into *Manas* they enter at their death" (III, 4). Here by *Manas* is meant perceptual consciousness which delights in sense objects and is moved by instincts and impulses.

The relation of mind to life is exactly of the same kind as the relation of life to matter. "Mind is the soul of *Prana* or life." Mind is not a by-product of body or life but is the central core of life. The two are different expressions of the one spiritual essence, lower and higher stages of a single all-embracing life. The relation of mind to life is that of a higher to a lower aspect of the spirit. It is puerile to minimize the distinction between the two by materializing mind or spiritualizing matter and life. While recognizing the distinction we should not lose our grip on the essential unity which underlies the distinction. The two contribute in their own distinct ways to the same individual whole. The two are so fashioned and constructed as to develop and promote a complete identity. They are aspects of the ultimate spirit, through the interaction of which the whole realizes itself. The science of biology, which studies life, neglecting the fruit and essence of life, mind, studies an abstraction. Psychology, if it divorces mind from life and studies mind as an isolated phenomenon, apart from its setting of life and the organism, lays itself open to the fallacy of the abstract.



It studies not human minds but disembodied ghosts. It is "phantomology" and not psychology. It is a good sign that psychology at the present day views its subject-matter from the biological point of view. Psychology studies not merely the *psyche* but the psychophysical organism. The conscious organism can be seen as a whole only by biopsychology or psychobiology. Only then shall we know mind in its origin and working.

The concept of *Manas* (mind) is higher than life or matter. It is the richer, fuller and more inclusive concept. But the searching intellect is not satisfied with its adequacy, for the perceptual consciousness does not exhaust the nature of reality. No doubt it accounts for the animal mind. Animals have only a perceptual consciousness, their mental horizon being restricted to mere perceptions of the present moment. The animal lives only in the present. It is devoid of the power of synthesis and therefore of self-consciousness. But the human consciousness is capable of rising above itself, of comparing itself with other selves and of passing judgment on its own character. The man judges while the animal only senses. He is a being of "wise discourse looking before and after." He is able to transcend the animal limitations, break down the despotism of the senses and lift himself above himself. While the animal leads a life of mere feeling and impulse, the self-conscious individual regulates his life in conformity with ideals of beauty, goodness and truth. It is the capacity to distinguish fact from idea which makes possible art, morality and science. So a higher category than animal mind or perceptual consciousness is felt to be needed. He approaches his father and is advised by him to think to the root of the matter. The son realizes, on reflection, that the specific quality of man which makes him the lord of creation is his *intellectuality*. By his intellect or understanding he seeks the true, attempts the good and loves the beautiful.

By it he connects sensations, compares and contrasts them with one another and derives inferences. It gives the power of synthesis. To it is due the self-consciousness of man. So the seeker after truth hits upon *Vignana* or understanding. "He perceived that *Vignana* (intellect) was *Brahmam*, for from *Vignana* these beings are born; by *Vignana* when born they live; into *Vignana* they enter at their death" (III, 5).

What is the relation of *Vignana* to *Manas*, or understanding to perception? This is the familiar question of modern epistemology, the relation of the universal to the particular, concept to percept, thought to sense. Understanding is related to perception as perception to life, or as life to matter. *Vignana* is a higher form of the lower *Manas*. It is the soul of *Manas* or its essential reality. "*Vignana* is the soul (or spirit) of *Manas*" (II, 4). Nothing is gained by divorcing intellect from sense. Such a divorce leads to abstract explanations of reality. Sense is the condition of thought. Thought does not produce or create a new order of existence. The sense world is not a mere chaos of particulars into which thought introduces, later and from outside, order and system. Thought only discovers or explicates the order which already prevails in the world of facts. The ideals of the world reveal themselves to thought. We seek order of facts. As in science we try to interpret the order prevalent in the actual and discriminate it from our errors and prejudices, so in morality we try to see the goodness of things and discriminate the good from the bad. We are not creating a new moral world by our action. The tendency to neglect the perceptual basis is the besetting temptation of the intellectualist temper. Rationalist theories which sacrifice the particular to exalt the universal reduce the universe, in the vivid phrase of Bradley, to an "unearthly ballet of bloodless categories." We get a philosophy of arid concepts having nothing to do

with the glowing experiences of life. Truth becomes a dead conformity to certain logical conceptions and ideas with no promptings from life. In art technique gets the mastery over temperament. Art expresses the critical and not the creative attitude of life. Morality becomes the drill-sergeant type, insisting on nothing more than a blind unthinking obedience to the commands delivered. Rationalism thus murders reality to dissect it. We find a mechanical perfection in place of spiritual beauty, logic in place of life. Organization is the ideal, but the process of starving the real leaves no material to organize. Philosophy becomes arid and abstract, art mechanical and soulless, and ethics formal and dead. The dire consequences resulting from the adoption of this theory in practical affairs of the world, we see to-day on the fields of Europe. We find also systems of philosophy which protest against this deification of intellect. But in their righteous revolt against the abuse of logic they are led to the opposite extreme of advocating inordinately the claims of immediate experience. Bergson and James are representatives of this new tendency in philosophy, which goes by the name of intuitionism or radical empiricism. This tendency to exclude logic from life is as vicious as the other tendency to exclude life from logic. The abstract and one-sided nature of mere empiricism is reflected in the world of philosophy, art and morality. Under its influence the superficial aspects of things are noted and the underlying principles neglected. Naturalistic explanations become dominant in philosophy. Art is sensualistic and ethics economic or utilitarian in the lowest sense of the term. Mere percept and mere concept are both good for nothing. Both are abstracts reified. Kant spoke a great truth which the world cannot afford to forget when he said that "percepts without concepts are blind; concepts without percepts are empty." This essential unity of these two distinct factors the Vedanta thinkers recognize.

The self-conscious individual in whom *Vignana* functions at its best becomes the highest expression of reality if there is nothing higher than intellect. But self-consciousness which is the product of intellect presupposes self-distinction. At the intellectual level the self conscious of itself is self exclusive of others, one among many. The self not only distinguishes itself from others but excludes others from its nature. A "pluralistic universe" will be the last word of philosophy, but the thinking mind recognizes certain difficulties in the way of accepting this solution as final. The natural outcome of such an intellectualist pluralism will be a narrow philistine spirit of individualism, sensualism and selfishness. The individuals enter into rivalry with one another for the satisfaction of their appetites and ambitions. Such a view will develop a sort of morbid ease and self-satisfaction with the actual and thus curb all efforts for the improvement of mankind. It would make it impossible for the finite mind to transcend its finiteness. It gives man no ideal of the solidarity of the universe to which he has to work himself up. The human consciousness which in some moments of exaltation feels itself to be at one with the whole universe, baffles this intellectual analysis. Those aspects of experience known as religious are not accounted for by the pluralist scheme. The factor of ever aspiring, ever striving for something higher which man has not but hopes to have, is not satisfactorily explained. Man recognizes his incompleteness and imperfection and seeks for something above himself, an ideal, an infinite. If the individual's highest aim is merely to secure an independent status for himself he becomes divorced from his real, i. e., his divine self. It is impossible for man, a child of eternity, to distinguish himself from God in the long run. He cannot fix any boundary to his real self. If he seeks for the private self-satisfaction he seeks the finite as if it were the infinite. It is the self-contradiction of a

being who knows not what he really is and seeks his good where it can never be found. If the world is a number of distinct isolated units, then peace and harmony are *a priori* impossible. Pluralism by itself cannot give any satisfactory account of the unity of the world of spirits. Most of the modern pluralistic systems recognize this difficulty. Professor Ward says: "That a plurality of individuals in isolation should ever come into relation is inconceivable indeed, but only because a plurality without unity is itself inconceivable" (*Realm of Ends*).

There is no doubt that human self-consciousness represents, though not the highest, yet a very high manifestation of reality. Sankara gives the following statement: "The *Atman* is expanded only in man. He is most endowed with intelligence. He speaks what is known, he sees what is known. He knows what is to come, he sees the visible and the invisible worlds. He desires to obtain immortality by appropriate means. Thus endowed is man." He has ideals of knowledge, beauty and goodness but he does not as a finite consciousness realize his aspirations. He only struggles toward union, peace and harmony. Though he ever strives toward union with the whole or the divine, he never grasps it on account of his finiteness and impotence. Finite souls never realize, though they ever strain after, that pure bliss and self-forgetful realization which in Vedantic phraseology is called *Ananda*. The sciences belonging to the intellectual level are sciences of struggle and endeavor and not sciences of fruition or fulness of attainment. They are sciences of approach to reality. Logic with its impulse toward totality *demand*s a complete and consistent world; love *struggles* for union with the whole, and life *attempts* to realize the all-perfect in conduct. In all these regions of mind we catch glimpses of the real but do not have the full vision with its joy unspeakable and the peace that passeth all understanding. We have *demand*s,

*struggles and attempts.* We are in the *striving stage*. We are only on the road with a dim vision of the end; the fulfilment is still a distant scene. The full splendor is not yet. So human self-consciousness is incomplete and imperfect. It is only a grade of reality to be transcended in something higher but not the whole of reality. On the other hand, if intellect should be the highest phase of reality, then morality, law and justice become the ultimate terms and struggle the end of existence. What a poor imperfect thing man will be if he has no prospect of realizing his ideals! His effort to become something greater, holier and higher than his own finiteness will be unsuccessful. The world will be cut into two as with a hatchet, self and not-self. If we do not embrace them in a final higher unity, then his spiritual endeavors are foredoomed to failure. Pessimism is our only refuge and prayer all our business. Man presses on toward a higher life, but cruel fate crushes the human soul. He desires to throw off his brutish heritage and reach heaven. But the blind forces of nature which go on their relentless way caring naught for the human victims, dash him down to the bottomless void. The intellect with its vision confined to outward appearances, is struck with "nature red in tooth and claw." Such an outward vision gives the impression that we are caught in the wheels of a soulless engine which has neither the eyes to see our agony nor the heart to feel for us. We are the victims of a merciless fate, trapped in the grip of destruction. Intellectualistic despair is the mental attitude of those who break the real into self and not-self and make the universe a tug of war between the two. Matthew Arnold's insistent note of sadness is due to his theory of opposition of self and not-self.

"No, we are strangers here, the world is from of old. To tunes we did not call, our being must keep chime." The system of nature does not sympathize with the bliss for

which we sigh. Our boundless hopes are shattered to dust and our tenderest ideals mocked by the stern indifference of nature. The microcosm is pitted against the macrocosm and to all outward appearances the external world seems to be the more potent force. What can man do in this plight except withdraw from the world and obtain inner freedom by renunciation and contemplation? "By the Tiber as by the Ganges, ethical man admits that the cosmos is too strong for him, and, destroying every bond which ties him to it by ascetic discipline, he seeks salvation in absolute renunciation" (Huxley, *Romanes Lecture*, p. 29). The Sankhya philosophy of ancient India starts with a dualism of *Purusha* (self) and *Prakriti* (not-self). They are the two eternal uncreated substances differing essentially from each other. Deliverance is to be obtained by realizing the separateness of the two and dissolving the bond between them. Man to gain his freedom has to cut himself off from the ties that bind him to nature. We are exhorted by Mr. Russell in his admirable essay on the Freeman's worship to cherish, adore and love the ideals where the mind is at home, caring naught for the universe. He builds an ethics of renunciation on this "firm foundation of despair." "To abandon the struggle for private happiness, to expel all eagerness of temporary desire, to burn with passion for eternal things, this is renunciation and this is the Freeman's worship." We are engaged in an unequal struggle between man and nature, self and not-self. A mere contemplation of it would produce a stoic calm combined with a stern pathos.<sup>2</sup> Militant heroism we may adopt if we care

<sup>2</sup> "Nature is cruel, man is sick of blood;  
Nature is stubborn, man would fain adore;  
Nature is fickle, man hath need of rest;  
Nature forgives no debt, and fears no grave;  
Man would be mild and with safe conscience blest;  
Man must begin, know this, where nature ends;  
Nature and man can never be fast friends.  
Fool, if thou canst not pass her, rest her slave."—M. Arnold.

How pathetic is this expression of despair, born of an intellectual vision which disdains to dive beneath appearances (Cf. Russell, *Philos. Essays*).



for the martyr's crown. Even martyrs die with the complaint, O God, why hast thou forsaken me? The destiny of man seems to be struggle, unrest, and baffled hope. This pessimistic conclusion is the essential theme of the Buddhists. They say there is nothing else than this world process or *Samsara*. There is neither a changeless God responsible for it nor a suffering deity struggling against the attacks of Satan. Buddhism considers the appearance of opposition to be final and exhorts man to get out of this whirlpool by sinking his selfhood. But this is too harsh a conclusion to be accepted by all. So a supreme soul or *Isvara* soon appears to help the individual in his warfare against the not-self. So God along with man battles with the prince of darkness. The atheism of the Sankhya system gives place to the theism of the Yoga philosophy. We have then the individual self, God and nature; the individual *self*, according to Saiva Siddhanta, *Vaishnavism* and Christianity, has to extricate himself from the fetters of *Nature* by the grace of *God*. The Highest in all these theistic systems is looked upon as a personal godhead,—a father, creator or providence, accessible to prayer and propitiation, ever loving man and granting his requests. By the help of God it is possible for man to escape out of this drift of the world called *Samsara*. If we think in the acquired dialect of the intellect we will not be able to reach the highest which includes all other things. We will get a pluralistic universe presided over by a God whose position therein is ambiguous. If we say God is over against a number of spirits and that the Absolute is a republic of spirits including God, we ask, what is the position of God in the republic? If he is one among the many he is reduced to the level of the finite beings. If man himself is part of God we shirk the whole problem by raising man to the level of the infinite. Pluralism is displaced by an abstract monism. But the pluralists' God is not the perfection

transcending both good and evil, not the absolute which absorbs them both, but only a force within it fighting with another. Such a God can only be an aspect of reality and not the whole of it. Besides, this conception of God opposed to the world naturally culminates in deism. God is transcendent to the world because the world is evil and he is good. He has nothing which nature has and can only be defined negatively. So a severe logician of the type of Sankara who thinks to the very foundations, with his intellectualist bias, reduces the universe to an opposition of self and not-self, God and the world, the infinite and the finite. Certainly both cannot be real, for the two are exclusive of each other. The finite world is dismissed as illusory and the absolute posited as real. For if we argue about the problem of the origin of the world and man's place in it, we will be drowned in a sea of contradictions. Kant, and after him Bradley, have shown the difficulty of reconciling the antinomies with which our understanding confronts us. The self-contradictory cannot be real. Therefore the finite world is illusory and the Absolute is real, for it is pure affirmation. But the Absolute which repels the relative cannot be anything more than an undifferentenced unity which is the negation of the finite and the determinate. The Absolute is related if we can talk of relation in this sense, only negatively to the world. The Absolute thus collapses into a self-identity, negatively related to the particulars, a featureless unity leaving aside all differences. To this absolute none of the attributes of finite being belongs. If we attach any predicate to it we will bring it down to the level of the finite. It is not anything which the finite world is. If the finite world is many it is one; if it is complex it is simple; if it is varying it is constant; if it is temporal it is eternal. Strip off everything finite and what remains is the infinite or God. Everything positive is excluded from the real, mind and matter in-

cluded. Escape from finite life is the goal of humanity. Such are the views of Sankara and the neo-Platonists. The fatal criticism against all such abstract notions of the Absolute is that they do not give any explanation of the finite universe. To say that the Absolute is the external and accidental cause of the universe, is no answer. To dismiss the world as illusion only removes the difficulty a little farther, for the question still arises, What is the cause of this world illusion? Thus we see that if we stick fast to the intellectual level we have either a bare unity as in Sankara or a collection of separate elements as in Sankhya and the Yoga. But in no case is it possible for us to have a unity in diversity, an organic system in which the whole should be known through the distinction and relation of all the parts. We do not see the two, unity and diversity, as elements in a whole or factors in a unity. It is such a solution that is adopted by the Vedanta philosophers.

The distinction between self and not-self is not an irrational surd which cannot be eliminated, but is a distinction within a unity. In man there is a struggle between the higher and the lower, self and not-self (*Purusha* and *Prakriti*). He is an amphibious animal living in two worlds. Born of matter, entangled in it and oppressed by want and misery, he still has the divine spark which gives him a place in the spiritual realm of freedom. But the struggle between the divine and the human is bound to result in a complete triumph of the spirit and the consequent idealization of the material aspect. The self with its "ought" comes down on the not-self and, in spite of the refractory nature of the latter, transforms it. In morality we transform the actual and idealize it. Knowledge presupposes a unity between subject and object; without this basis knowledge is impossible. The very distinctions made by the intellect presuppose a unity which is not grasped by intellect. The interpretability of nature is proof posi-

tive of the kinship of object with subject, nature with mind. The antithesis between self and not-self is resolved in the Vedanta philosophy and the two are reconciled; "*Purusha* (the self) is the eater, *Prakriti* (not-self) is the food, and, abiding with it, he feeds" (Maitrayana Brahmana Upanishad, VI, Prapathaka 10). The not-self offers the conditions which are the material of self and the self instead of being the slave of the not-self is the highest and the most articulate expression of the not-self. Self and not-self do not run counter to each other. They are no rivals; rather do the two help each other in fulfilling the mission of the Divine. They are co-operating and not conflicting elements in the whole. We cut in two the whole and then view the environment as an alien influence checkmating the individual at every step of his progress. The individual is said to progress by fighting and conquering nature. We forget how nature could not be conquered by him if it were different from him in its essence. It is therefore a system of absolute idealism, however much we may try to disguise it by giving it other names that preserve to us the reality of the ideals and the unity of the pluralistic world. Even thinkers strongly inclined to pluralistic notions are compelled by sheer force of logic to embrace their pluralism in a higher idealism. Upton says: "It follows therefore that, though atoms and bodies appear to be isolated co-existences in space, this complete isolation and seeming independence of each other is only an appearance; for the reciprocal causality by which all these atoms and bodies are linked together inevitably forces us to the conclusion that deeper than the apparent spatial distance and division there is a metaphysical unity, or in other words that the self-subsistent creative ground of all finite existence does not wholly separate Himself from any one of the plurality of dependent energies or beings into which He differentiates himself; and therefore as every finite atom or

finite soul still remains, as regards a part of its nature, in indivisible union with its self-subsistent ground and source, the common relation to the self-subsistent one affords a true explanation of the metaphysical unity of the cosmos, and also of the possibility of reciprocal action of the monads of nature on each other, and of reciprocal action of the finite mind on nature and of nature on the mind. Thus the most recent science and philosophy appear to assert at once a real pluralism or individualism in the world of finite beings, but at the same time a deeper monism. The Eternal, who differentiates His own self-subsistent energy into the infinite variety of finite existences, is still immanent and living in every one of these different modes of being, and it is because all finite or created beings are only partially individual and still remain in vital union with their common ground, that it becomes possible for them through the medium of this common ground to act dynamically on each other; and it is for the same reason that those finite beings such as man, who have attained to self-consciousness, are able to enter into intellectual, moral, and spiritual relations, both with other rational finite minds and also with the eternal being with whom their own existence is in some measure indivisibly conjoined" (*Bases of Religious Belief*, pp. 12-13). The latest and the ablest exponent of pluralism, Dr. Ward, says: "Faith in God as the ground of the world affords us an assurance which we could not otherwise have, that complete harmony and unity, the good of all in the good of each is really attainable, nay will verily be attained. Whereas if we stop at a plurality of finite selves in interaction, we have no guarantee, cannot even reasonably expect that such a totality will ever attain to perfect organic unity" (*The Realm of Ends*, p. 447). Thus Ward and Upton, no friends of absolute idealism, are driven to admit the existence of an all-embracing unity as the ground of the world and recognize the finite selves

as differentiations thereof, though they try very hard to give the finite souls separate individualities.

The reality of the ideals of knowledge, art and morality has for its basis the highest unity which cannot be realized by *Vignana* (intellect) which revels in distinctions of self and not-self, subject and object, man and the universe, organism and environment. Our knowledge aspires to something more than knowledge, an intuitive grasp of the fundamental unity; our morality to something more than morality, viz., religion; our self to something more than personality, viz., God or the Absolute. Our knowledge is incapable of bringing us into contact with the whole. It aims at the unity, though the limitations of intellect forbid the attainment of the unity. The highest unity "from which all speech with the mind turns away, unable to reach it" (*Taittiriya Upanishad*, II, 4) cannot be grasped by the intellect.<sup>3</sup> The universe does not spell out its secret to man. It withholds from man the mystery which he strains to see. The human understanding can classify, relate and create out of given data, but it cannot say anything about the Absolute which is one without a second, and which is no object of the senses but constitutes the self of the whole world. The *Kena Upanishad* says: "It is other than the known and above the unknown." Simply because it is not open to knowledge we cannot say it is unreal. The illusions and contradictions of the intellect according to the Vedanta philosophies only exhibit the insufficiency of intellect to grasp the whole. They only show that there is a higher form of experience and that the spiritual life is not exhausted by the intellectual. To realize that there is the one all-encompassing reality including self and not-self, we have to proceed to the next higher stage. Finding the

<sup>3</sup> *Kena Upanishad* says: "The eye does not go thither, nor speech, nor mind. We do not know, we do not understand, how any one can teach it. It is different from the known, it is also above the unknown" (I, 3-4. See also I, 5-9).

finite intellect infected with duality, and realizing its inadequacy to represent the real, the son approaches the father, who asks him to persist in his inquiry. Bliss (or *Ananda*) reveals itself as the final explanation. "He perceived that *Ananda* is *Brahman*; for from *Ananda* these beings are born; by *Ananda* when born they live; into *Ananda* they enter at their death" (III, 6). We have direct experience of this bliss or delight in philosophic contemplation, artistic worship and religious devotion. In them we gain the ultimate peace beyond the unrest of life, attain the glorious harmony transcending all discords and grasp the unity of purpose which works through the apparent conflict of natural and social forces. The seer, the sage and the saint all enter into direct communion with the heart of things. Self and not-self are felt to be clasped in one in that stage. "All fears cease." Incidents of the earth cease to trouble the knower. The self has the consciousness that there is nothing else beside the Absolute. "One finds nothing else, knows nothing else, but the self." "All this is the self and the self alone" (*Brihadavanyaka Upanishad*, II, 4-6). So long as he sticks fast to the hard distinction between self and not-self, he has not reached the highest. It is said, "Where one sees nothing else, hears nothing else, understands nothing else, that is the infinite. Where one sees something else, hears something else, understands something else, that is the finite" (*Chandogya Upanishad*, VII, Prapathaka, 24th Khanda). The oneness of the universe cannot be characterized by anything else than bliss, joy or delight. "Seeing the self by the self, he is satisfied in his own self" (*Bhagavat Gita*, VI, 20). This highest experience is the heaven of Dante, free from darkness, confusion and antagonism. It is characterized by peace, perfection and tranquility. The aspirations of knowledge, love, morality, are here transformed into actualities. The unity of subject and object is no more an



ideal but we see it face to face. The oppositions of the finite consciousness are all reconciled. The son arrives at this stage and is no more troubled with doubts. His inquiry ceases. From *Ananda*, matter, life, consciousness and understanding are born, in *Ananda* they live and to *Ananda* they return. The harmony of man and the universe, *chit* (intelligence) and *sat* (reality) is realized. In that moment of divine vision described in the Bhagavat Gita the whole choir of heaven and furniture of earth was seen by Arjuna moving in the radiance of God. This religious or intellectual experience is the summit of the whole evolution. It is the crowning round of human life. It is the completion and the consecration of the whole struggle. It is "the light that never was on sea or land, the consecration, and the poet's dream." Here the philosopher's quest for reality in which thought can rest, terminates.

If self-consciousness is the distinctive mark of the intellectual experience, self-forgetfulness characterizes the *Ananda* (bliss) condition. It is the state where the self loses itself in the universe and by so losing finds its own realization. Peace and harmony we have; for the self offers itself up wholly and completely to the service of the Absolute. So long as we feel ourselves to have individualities of our own, we will be beset with conflict and contradiction, pain and pleasure, but when once we disinterestedly give ourselves up to the whole, there is an end of all discord. "Whatever thou doest, whatever thou eatest, whatever thou sacrificest, whatever thou givest, in whatever austerity thou engagest, do it as an offering to me" (*Bhagavat Gita*, IX, 27). "Fix thy mind on Me, be devoted to Me, sacrifice to Me, bow down to Me. Thus steadied, with Me as thy Supreme Goal, thou shalt reach Myself the Self" (*Bhagavat Gita*, IX, 34). Only this complete renunciation of self and delivering up to the whole, will liberate

us from the pains of opposites (cf. *Bhagavat Gita*, IX, 28). The beautiful tradition that no man can see God and live, points to this truth that finite selfhood is incompatible with the life of the spirit. It shows how we cannot see God until we roll the stone of self away. The religious individual feels himself to be, not a selfish atom in the universe, but part of an order with a station to occupy and a function to fulfil in the economy of things. With his vision ever on the supreme, the religious soul approaches the facts of existence. He knows that the forces of the world cooperate with him in the realization of the highest. He lives above the plane of human experience, but still in it. He is the hero of the world who deserves worship at our hands.

It is not right to presume that intuition, by which we see the oneness of things, negates whatever intelligence posits. Intuition is really the soul of intelligence. The unity we will be able to grasp by means of intuitive insight, is the presupposition of all intellectual progress. Intuition is only the higher stage of intelligence, intelligence rid of its separatist and discursive tendencies. While it liberates us from the prejudices of the understanding, it carries our intellectual conclusions to a deeper synthesis. Instead of being an unnatural or a mysterious process it is a deeper experience which, by supplementing our narrow intellectual vision, amplifies it. Intuition is not an appeal to the subjective whims of the individual or a dogmatic faculty of conscience or the uncritical morbid views of a psychopath. It is the most complete experience we can possibly have. It is the experience devout souls have in moments of spiritual exaltation or religious devotion. Hegel, and after him Bradley, testify to the highest worth of this religious experience. Hegel says: "All the various peoples feel that it is in the religious consciousness they possess truth, and they have always regarded religion as constituting their true

dignity and the Sabbath of their lives. Whatever awakens in us doubt and fear, all sorrow, all care,—we leave behind on the shores of time; and as from the highest peak of a mountain, far away from all definite view of what is earthly, we look down calmly on all the temptations of the landscape and of the world, so with the spiritual eye man, lifted out of the hard realities of the actual world, contemplates it as something having only the semblance of existence, which, seen from this pure region bathed in the beams of the spiritual sun, merely reflects back its shades of color, its varied tints and lights, softened away into eternal rest" (*Philosophy of Religion*, English translation, Vol. I, p. 3). So Hegel. Bradley says: "We can see at once that there is nothing more real than what comes in religion. The man who demands a reality more solid than that of the religious consciousness, knows not what he seeks" (*Appearance and Reality*, p. 449). So when we talk of intuitional truths we are not getting into any void beyond experience. Intuitional experience is within the reach of all provided they strain themselves to it. These intuitional truths are not to be put down for chimeras simply because it is said that intellect is not adequate to grasp them. The whole, the Absolute, which is the highest concrete, is so rich that its wealth of content refuses to be forced into the fixed forms of the intellect. The life of the spirit is so overflowing that it bursts all barriers. It is vastly richer than human thought can compass. It breaks through every conceptual form and makes all intellectual determination impossible. The real is no more a pulseless identity excluding all differences; nor is it a chaotic disconnectedness with no order in it. It is the spiritual life, embracing the facts of nature which are shot through and through with the forms of mind. Philosophy is neither purely conceptualist nor merely empiricist but is intuitional. Art is the living expression of the soul which feels

itself to be in tune with the infinite. Morality is no more self-satisfaction or blind obedience to a set of categorical imperatives but is the life of a soul which feels its grip firmly on the spiritual destiny of the world. Philosophy, art and religion become different expressions of the one feeling of unity with the universe. This feeling of the essential oneness of the world-spirit failed the facts in the lower stages and made them lower, but now the identity is revealed and the Absolute is reached.

The relation of this Absolute *Ananda* to the other categories is one of higher to lower. The lower is included in the higher. The whole world is in *Ananda*, "The other beings live upon a small part of this *Ananda*." This joy is the reality or essence of the lower categories. "Life is the essence of food, mind of life, knowledge of mind, joy of knowledge" (*Maitryana Brahmana Upanishad*, VI, *Prapathaka*, 13). The highest and the most concrete category is *Ananda*. All the rest are imperfect revelations of it.<sup>4</sup> The whole variety of being rests in the Absolute and "is an evolution from that alone" (*Bhagavat Gita*, XIII, 30). The Chandogya Upanishad says: "From the Self is life, from the Self is desire, from the Self is love, from the Self is *Akasa*, from the Self is light, from the Self are waters, from the Self is manifestation and disappearance, from the Self is food" (VII, 26). Ultimately, life, mechanism, consciousness and intellect are parts of this comprehensive whole. They are all abstracts from it and the Absolute is the only *res completa*. It is the only individual. We cannot attribute a substantial existence to the individuals of sense. If we do so we remain, to use Spinoza's language, at the level of imagination without rising to the level of

<sup>4</sup> The categories cannot adequately bring out the nature of Brahman though they all rest in it. "That which is not expressed by speech and by which speech is expressed;...that which does not think by mind and by which, they say, mind is thought;...that which does not breathe by breath, and by which breath is drawn, that alone know as Brahman, not that which people here adore" (*Kena Upanishad*, I, 5, 6 and 9).

reason. The Absolute therefore is the whole, the only individual and the sum of all perfection. The differences are reconciled in it and not obliterated. The dead mechanism of stones, the unconscious life of plants, the conscious life of animals and the self-conscious life of men are all parts of the Absolute and its expression at different stages. The same Absolute reveals itself in all these. The ultimate reality sleeps in the stone, breathes in the plants, feels in the animals and awakes to self-consciousness in man. It progressively manifests itself in and through these particulars. The Absolute thus is an organized whole, with interrelated parts. It embraces time, its events and processes. The finite universe is rooted in the Absolute. Life, mechanism, etc., are all members together of one whole. The Absolute is not an abstract unit but a concrete whole binding together the differences which are subordinate to it. The whole has existence through the parts, and the parts are intelligible only through the whole.

On this view there cannot be any "creation." The question as to why the Absolute limited itself, why God became man, why the perfect became imperfect, is irrelevant. For there is no such thing as an infinite which first was an infinite and then transformed itself into finite. The infinite is finite. The Absolute is the self and its other. Gaudapada in his *Karikas* on the *Mandukya Upanishad* mentions the different theories of the creation of the universe. The universe may be the creation of an extra-cosmic God, or an illusion or the product of evolution. He dismissed these theories as incorrect, and declared that it is of the nature of God to express himself. It is the essence of spirit to manifest itself. The world is the affirmation of the Absolute. The universe is the energizing of God. God realizes himself in the world. We do not have the infinite and the finite, God and the world, but only the in-

finite as and in the finite, God as and in the world. The Supreme, the Eternal, is the unity of all things, finite and infinite. But when we consider the development of the Absolute, the distinction of self and not-self appears. The first existent or object in the Absolute is God, *Iswara* or the world-soul. He is the first-born lord of the universe, the creator of the world and its ruler. The Absolute breaks up its wholeness and develops the reality of self and not-self, *Iswara* and *Maya*, *Purusha* and *Prakriti*. The self is God and the not-self the matter of the universe. This not-self is not a positive entity, as the Sankhya philosophers view it, but is only the reflection of the *Iswara*, the negative side of the affirmative. *Iswara*, or the personal God, is not the Absolute, but the highest manifestation of the Absolute. But even its highest manifestation is only a partial expression of it and not the whole.<sup>5</sup> The opposition of self and not-self, necessary for the universe, arises. The universe is due to the conjunction of *Maya* (not-self) with *Iswara* (self). "I know *Maya* as *Prakriti* (matter), him who is united with her as the great ruler (*Maheswara*). The whole world, in truth, is pervaded by his parts" (*Svetasvatara Upanishad*, IV, 10; cf. *Bhagavat Gita*, XII, 29). By the further differentiation of this original duality of self and not-self, *Iswara* and *Maya*, the whole universe arises. The world process is viewed as an eternal sacrifice, of which the one all-embracing reality is the victim (see *Catapatha Brahmana*, X, 2, 2, 1; III, 5, 3, 1; and XIII, 3, 1, 1).

We see now how the popular conception of the world as *Maya* or illusion is not right. *Brahmam*, the Absolute, is described in the Vedanta texts as an all-inclusive and not exclusive idea. It is the life of life, "the reality of reality" (*Brahadaranyaka Upanishad*, II, 1, 20). It is "existence,

<sup>5</sup> Sankara speaks of *Sri Krishna*, the fullest incarnation of God according to the Vedic religion, as *Amsena Sambhabhuva*, "born of a part."

intelligence and bliss.”<sup>6</sup> It is not a homogeneous unity but a harmony of different constituent elements. The Absolute is the fulfilment and completion of everything that is in the universe and not their extinction. It is the consecration of the lower forms of reality and not their destruction. The Vedanta Absolute is not the abstraction of an *être suprême* which avoids all differences but is a spirit that transcends and at the same time embraces all living beings. The *Maya* theory simply says that we are under an illusion if we think that the world of individuals, the pluralistic universe of the intellect, is the absolute reality. If in that way we make absolutely real what is only relatively real, we are bound in the chains of *Maya*.<sup>7</sup> Again, the Vedanta system cannot be considered pantheistic if by pantheism we mean an identification of the world with God. The Vedanta says nature or the world is only an expression of God. God is more than the world. The finite reveals the infinite but it is not the whole infinite. The Vedanta does not say that the human self-consciousness of the twentieth century is an adequate revelation of the absolute mind. The Absolute is more than man or for that matter the finite universe which includes man. “This whole world is sustained by one part of myself” (*Bhagavat Gita*, X, 42). “All beings form his foot” (*Taittiriya Aranyaka*, III, 12).

We will conclude this discussion with a few remarks on the place of imperfection and evil in the Vedanta philosophy. The whole universe has in it the impulse toward union with the Absolute. The pulse of the Absolute beats through the whole world, self and not-self. The world is an imperfect revelation of the Absolute striving to become perfect, or to reach harmony. The universe is the Absolute

<sup>6</sup> “He in whom the heaven, the earth and the sky are woven, the mind also with all the vital airs, know him alone as the Self” (*Mundaka Upanishad*, II, 2, 5) “that immortal Brahman is before, is behind, Brahman is to the right and the left” (*Ibid.*, II, 2, 11).

<sup>7</sup> See the writer's paper on “The Doctrine of *Maya* in the Vedanta Philosophy” in the July number of the *International Journal of Ethics*, 1914.



dynamically viewed. If eternity is a circle, then the process of the universe may be viewed as a straight line. The universe of finite objects gives us a moving image of eternity, in the words of Plato. The eternal is viewed as a growth or a becoming or a working out. In the universe we have the self-evolution of the Absolute. The lower stages, which are imperfect as compared with the higher, strive to become perfect. The whole universe is a vast struggle to realize the unity which is the ideal. This tension of the universe is mirrored in man, reflected in his individuality. The Taittiriya Upanishad declares that man is a microcosm in which all parts of reality are represented on a reduced scale.<sup>8</sup> His nature reaches up to the Absolute and down to the plant and the animal. While confined to a material organism, the individual self has the capacity to rise beyond intelligence into immediate contact with the divine. To bring about the unity between the higher and the lower is the aim of the individual self as it is the aim of the universe. The individual self is the theater in which is enacted the drama of the universe, namely, the realization of a central identity in and by means of the differences of mechanism and life, consciousness and intellect. The impulse toward union and harmony is present in all finite objects. The finite strives to pass out of itself. All objects of the universe are thus double-natured. "Whatever being is born, the unmoving or the moving, know thou, O best of the Bharatas, that to be owing to the union of *Kshetra* and *Kshetragna*, 'matter and spirit, finite and infinite'" (*Bhagavat Gita*, XIII, 26). They are finite-infinite. The finiteness *qua* finiteness is a standing contradiction to the infiniteness. The presence of the infinite enables the individual to break the finite and proceed higher up. It is by

<sup>8</sup> In Chapter II it is said that the individual should not be identified with either the physical or the vital or the mental or the intellectual self. The essence of the individual's nature is to be found in the self of bliss which is the inmost self of all.

such a breaking of the shell of finiteness that the infinite self finds itself and develops. To gain the higher we must give up the lower. Unless our little self is sacrificed, progress is not possible. Every step on the upward path of realization means sacrifice of something else. This sacrifice, which means friction, opposition and pain, is the penalty we have to undergo in rising to our selves, on account of our finiteness. Throughout we have these incidents in the growth of a soul. Pain and suffering are phases of all progress. The process of the life of self is also a process of death. To have the fruit we must sacrifice the flower, though it is hard and painful to sacrifice it. Evil is thus organically related to the higher interests of man and is a necessary phase in the development of the individual self. Evil is therefore as real as the finite being is real. In this universe there is always development. We can never say "it is finished." The Absolute is never in history completely revealed. If so there will be no universe and no finiteness. As Schelling says, "God never is, if *is* means exhibition in the objective world; if God were, we should not be." Again, "The ultimate goal of the finite ego and not only of it but of the non-ego—the final goal therefore of the world—is its annihilation as a world." As Bradley says, "Fully to realize the existence of the Absolute is for finite beings impossible. In order thus to know we should have to be and then we should not exist." When we see Brahma we become Brahman. That is the verdict of the Vedanta philosophy. As finite we cannot see; when we see, we become infinite. In the finite universe there will ever be approximation to the goal of reaching the infinite and never realization. The Absolute in this world is half dream, half reality. The universe is only a partial revelation of the Absolute. Knowledge is an infinite progress; morality, a ceaseless growth. That is why the Vedanta philosophy considers this finite world to be a be-

ginningless and endless *Samsara*. We can never completely break the shell of egoism and attain the infinite if we remain in the finite universe, giving a substantial existence to our own individual self. The release from this world of trouble, risk and adventure can be had only by losing the separate self. Absolute surrender of self to God, a perfect identification with the divine will, will "let us pent-up creatures through into eternity, our due." The Swetswatara Upanishad says: "In this wheel of Brahman, which is the support as well as the end of all beings, which is infinite, roams about the pilgrim soul when it fancies itself and the supreme ruler different. It obtains immortality when it is upheld by him" (i. e., when the soul thinks itself to be one with him" (V, 6). If the soul does not gain this height of spiritual splendor when it loses itself in the all, it will find itself again and again taking births in the finite universe, as a separate self with all the results of the past *Karma* entering into its nature. It will revolve in the wheel of births and deaths until it reaches the highest, when it gives up all subjection to time.

Pain and suffering then are necessary incidents in the development of a human soul, which, as given, is a discord. Man is at a parting of the ways. There is a conflict between the different elements, the higher and the lower. Man is the completion or fulfilment of the lower and the anticipation of the higher. But growth means the death of the lower and the birth of the higher self, and so it will be accompanied by the agony of death and the travail of birth. We have moral evil and sin if the finite self assumes a false sufficiency and independence and adopts a more or less indifferent, if not a hostile, attitude to the universe at large. He is a sinner who, owing to imperfect understanding, takes up a false defiant attitude to the not-self. Intellectually this act is error and morally it is evil. If a man considers his supreme good to be in the satisfac-

tion of his appetites and the desires of the organism, he is a sinner. Selfishness is the root cause of sin. It is the opposition of the finite to the infinite, the rebellion of man against God. Evil is as necessary as any other finite element in the universe. A universe without it will be a universe where the finite is swallowed up in the infinite. A mere infinite without finite is an impossible conception. Therefore evil is a permanent factor in the universe.

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## THE CONCEPTION OF BRAHMA.

### THE PHILOSOPHY OF MYSTICISM.

"In the whole world there is no study so beneficial and so elevating as that of the Upanishads. It has been the solace of my life, it will be the solace of my death."

—Schopenhauer.

THE Vedantic system of philosophy has two broad aspects, the esoteric and the exoteric. The former is technically metaphysical and is abstract in form; the latter is in a concrete historical setting and is for the requirements of those who have not, so to speak, risen above faith and form. The four main divisions of Vedantism deal with the doctrine of God or of the philosophical principle, the doctrine of the world, the doctrine of the soul, and lastly the doctrine of the fate of the soul after death. These constitute respectively the theology, cosmology, psychology and eschatology of the system. A treatment of these doctrines as such must proceed entirely on historical lines so as to represent faithfully the traditional views. But with this merely exoteric aspect we shall not be concerned at all, the present exposition being confined solely to the Vedantic theory of being, the central ontological tenet of the identity of the self and the universe, the doctrine of Brahma as the one and sole ultimate reality, the One Eternal Being to which there is no second.

In fact the attempt will be made to show how it is

possible to lead up, on the speculative side, to the great metaphysical truth of the unity of the cosmical principle of the universe and the self, a truth first grasped only intuitively by the mystics. The whole of Eastern mysticism, or for that matter of any mysticism, may be summed up in the compound word *Brahma-atma-aikyam*, i. e., the unity of the Brahma and the self. The significance of this is that there is only One real being, a Being that is absolutely One, and as the Vendantist goes on to add in his famous formula, *Tat tvam asi*, "That art Thou". The self or soul in each of us, this is the Absolute. But there is not a plurality of selves. There is only One, and That art Thou. Thus boldly the Hindu philosopher declares *Aham Brahma asmi*,—"I am Brahma." Thus does he identify the individual self with the eternal principle of all Being. Or, if one prefers to use the word God, there is naught but God and that art thou. The individual self is not a part of the Absolute nor an emanation from him, but it is absolutely identical with him.

And it is the Absolute here and now, though, owing to *Avidya* or ignorance, the illusion of plurality and separateness from the eternal indivisible Brahma results. Here in these few words we have presented to us the whole story of the Vedanta, which is endlessly repeated in ever varying forms throughout the Upanishads. But the theory as stated above is too condensed and requires fuller elaboration for any intelligible appreciation of it.

The fundamental conception of the identity of the self and the universe was arrived at intuitively rather than by metaphysical speculation. But let it not be supposed that because the Hindu sages reached this truth in the first instance mystically, therefore it cannot be defended on rational grounds or in fact even arrived at by way of reason; for philosophical mysticism is as much a rational theory as any speculative philosophical theory is, and can justify

itself in terms of discursive thought. The conclusion reached by the Vedantist that the process of ideation is essentially defective and must therefore be transcended, does not make the theory any the less philosophical or the arguments any less cogent. There is no weight in the objection that arguments showing the unsatisfactoriness of the thinking process must thereby be invalid. When it is declared that the individual self alone is, there is an obvious danger of the mystic position being confused with mere solipsism. According to the solipsist, what appear to be other finite selves like himself are in reality merely his experience. There are no other selves, only he exists. Now the Vedantist in affirming the sole reality of the *Atman* does not say that other selves are merely his experience and that there is naught beyond his present self and its experience. What he does is to identify himself with other selves, and even further with all else. The doctrine here seems to be merely realistic, for though the view taken of being is monistic, yet the Absolute does not differ from the realistic One of the Eleatics. Both the reality and the observer of it are regarded as real.

But at this point through the very realistic form we see the transformation that has been effected, for the world is here identified with the observer and with him in so far as he is the knower of the unity. There is then no external world independent of knowledge, for it is the very knower in so far as he knows, and thus what was apparently a merely realistic monistic doctrine is seen to be really not so, becoming completely idealistic at a stroke in the identification of the knower and the universe. The illusion for the solipsist is the other selves and whatever else he considers not himself. For the Vedantist, on the contrary, all this is not illusory; the illusion consists in his thinking that they are other than himself. It is the illusion of separateness, of diversity. For the solipsist the things are illusory; for



the Vedantist not the things but the plurality is illusory. Thus there is a world of difference between the two positions, though both agree in declaring the sole reality of the self.

Being is defined as an absolute and simple unity by the Vedantist. The manifoldness is merely illusory, or a "mere matter of words" as the Upanishads express it. Therefore is the Absolute distinctionless, without attributes, unconditioned, and since knowledge involves the duality of subject and object and the Absolute forms a unity, it is also unknowable. Knowledge must be transcended to obtain oneness with the Brahma or *Atman*. So in speaking of the Absolute, which is the self, the Hindu says, "Before him words and thought recoil not, finding him." All that can be said of him is *Neti, neti* ("It is not so, it is not so").

What then is the nature of this reality? Since by reason of our intellectual constitution we cannot know it, how then can Brahma, the eternal and indivisible, be apprehended? The answer is given in the following stanzas of the Kathaka Upanishad:

"Not by speech, not by thought,  
Not by sight is he comprehended;  
'He is,' by this word is he comprehended  
And in no other way.

"'He is,' thus may he be apprehended  
In so far as he is the essence of both.  
'He is.' To the man who thus has apprehended him  
His essential nature becomes manifest."

Thus we see that to be real means to be immediate so completely that knower and known, subject and object become one, so that all thought and ideas, being absolutely satisfied, are transcended. Since there is no sundering between knower and known, here knowing and being are one. It is the unique immediacy of the awareness of the inner self. "I am I" is all that can be said. The knowledge is not mere descriptive knowledge, for even if I were

to be familiar with all that science could ever teach, I would be no nearer to my inner self, the gulf would not be bridged. But furthermore it is not even knowledge by acquaintance, that knowledge by which we are directly aware without the intermediary of any process of inference or any knowledge of truths, in other words awareness of sense data, of brute facts; for here too there is as complete a sundering as in the case of knowledge by description. The apprehension is of that unique nature whereby I can only say "I am I." However much knowledge by description or by acquaintance you may have of this table, it still baffles you for it is other than you; but you are aware in a totally different way of yourself because you are yourself. But the Brahma or self is unknowable in the ordinary sense of the word knowledge, i. e., intellectual relational knowledge, for all knowledge involves the duality of knowing subject and the object known, whereas the inner self can never be the object known. For in any act of cognition it is the knower. And this leads the Vedantist to say of it that all words and thought recoil, not finding it. This self cannot be proved, for in proving it you already presuppose it; nor can it be disproved, for according to the old Cartesian formula *Cogito ergo sum*, in the very denial of it you affirm its reality. Thus the self is absolutely inaccessible to our intellect, which belongs to this relational world. It is beyond any act of cognition, for in it subject and object are identified. It is inexpressible in terms of idea. To know it is to be it, for it cannot be the object of any finite thought. Now since Brahma is beyond all ideas he cannot be conceived as having any attributes. He is free from all determination. Nothing can be predicated of him for he is beyond the reach of finite thought, which, searching ever for an Other, implies the dualism of subject and object. In the self or Absolute, knower and known and knowledge are all one. All the opposition and contradiction of this

appearance-world is transcended in an absolute immediacy. And as Royce in his interpretation of the position says, "We must regard the absolute immediacy not as the raw material of meaning but as the restful goal of all meaning, —as beyond ideas, even because it is simpler than they are. It is at once nothing independent of knowledge and nothing that admits of diversity within knowledge. The self is precisely the very knower, not as a thing that first is real and then knows, but as the very act of seeing, hearing, thinking, in so far as the mediating presence of some Other, of some object that is known, seen, heard, thought, is simply removed, and in so far as the diversity of the acts of knowing, seeing, hearing, thinking is also removed."<sup>1</sup>

In attempting to trace out some definite line or argumentation by which the Vedantic conclusion of the sole reality of the *Atman* or self may be established, proof positive must not be looked for, for where any constructive effort is concerned it is only possible to open up lines of thought, to hint and to suggest rather than to establish propositions in any finally demonstrative manner. The hints and suggestions themselves are guided by the conclusion which has really already been arrived at intuitively.

Anything beyond a superficial investigation of the position reveals to us that Vedantism finds its bed-rock in a criterion of reality which is not only universal but also absolutely certain, for self-contradiction results from doubting it. The principle when brought to light is that reality is self-consistent and internally coherent, that it does not and cannot involve self-contradiction. But reality does not here and now present itself to us as free from self-contradiction. Royce has in his Gifford lectures ably described "the finite situation that sends us all alike looking for true being." In this situation in which we finite beings find ourselves there is ever a conflict between mere immediate brute facts

<sup>1</sup> *The World and the Individual*, Vol. I.

or meaningless experience and idealized experience or that possessing meaning. We are ever confronted with the contrast of fact and idea, and the world-process consists in trying to win one side over to the other, to illuminate blind brute facts with the light of meaning; in other words to realize more and more that reality is not self-contradictory. Briefly we may look upon the conflict as the effort of thought to comprehend being, the attempt at a reconciliation between knowledge and being.

In this disquieting situation we seek for an Other, which if found would end the conflict, and in the winning of which the meaningless would vanish and thought have accomplished its task. We seek to make our ideas complete embodiments of meaning instead of leaving them in their present state of partial embodiment. We have in our finite situation merely relative immediacy, for both masses of sensation and feeling, which are the meaningless aspect of our ordinary consciousness, and ideas, which are relatively meaningful, are not wholly immediate because they are not wholly satisfying. The intellect and will are not to be sundered in an abstract fashion, for, as has been truly said, all our conscious deeds are merely immediately visible and tangible ideas, and thoughts are nascent deeds. Thus in this disquieting situation of merely partial immediacy and satisfaction, we search restlessly for an Other to end the quest, for some final and wholly satisfying fulfillment. What we seek is something to end our disquietude, for till this Other, which we finite beings just because of our finitude ever pursue, is won, reality must remain largely incoherent and meaningless. That which is real therefore must not, when confronted, involve the finite striving of thought and desire, for these by their very constitution and by their presence imply the admission that truth is not present in its totality. But, it will be objected, why should the self-consistent nature of reality be present

to us? Is it not sufficient that it should be self-consistent and yet beyond us altogether, completely out of our reach? This is the course adopted by the realist, and to him we must now turn our attention.

Realism is fully aware of the above finite situation which brings dissatisfaction and forces us to admit that truth is not present to us. But taking the very opposite direction from Vedantism it makes reality an independent being absolutely beyond all our striving, for it is defined as independent of all knowledge that refers to it. By realism we may understand any theory that sunders the object from the idea of that object, that is, which asserts that reality is not dependent for its existence upon the ideas or states of consciousness of the knowing subject. More precisely realism is the doctrine that makes the essential character of real objects to be their independence of all actual or possible external knowing processes whatever. Independence of knowledge that refers to it from without, this is the mark of a real object. It is evident from this that reality need not be matter, for realism can just as well be immaterialistic, as in the case of the monads of Leibniz, the things-in-themselves of Kant and the Platonic ideas. There is no need to discuss any special forms of realism, for since the argument is directed against the very ontological predicate itself and not to the objects to which it applies, it little matters to us whether the real beings are conscious monads or atoms or material substances. The attack is against a world of independent beings, of whatever type these beings may be. Realism asserts that our knowledge of a thing makes no difference to it. It is the object which can make our ideas of it true or false, but the truth or the falsity of our ideas does not affect the object itself. Real being is supposed to be independent of knowing and yet capable of being known. But epistemological considerations show quite clearly that the object

cannot thus be sundered from the idea of it. Reality is known to me only through my intellect,—the world is presented to me as experience or psychical matter of fact. Knowledge and being are for us co-extensive. Whatever it be in itself, for me at all events the world is my representation, for apart from the forms of my intellect which it presupposes, it has no reality. Make the attempt to think of anything whatever as real and yet outside of all experience and the absolute futility of trying to sunder knowledge and reality will be realized. The very reality of a thing consists in its being known, for we cannot get outside our own experience. As a matter of fact both the real and the unreal are defined in the same way by the realist, for according to him reality is independent of any knowing, and it will be found that the unreal cannot be thought of otherwise than as that of which no mind is ever aware. Thus if the real and the unreal are not to be considered identical, then reality cannot be independent of experience. Idea and object must not be severed, and the dualism of the realistic view has to be abandoned. The principle of the inner consistency of reality cannot be realized by means of it. An Other entirely beyond us cannot end the disquietude of the situation in which we as finite beings find ourselves. The contrast of fact and idea must be overcome in some other way, for if reality is in very truth not self-contradictory the realistic explanation fails to satisfy. Here steps in the Vedantic mystic saying that the disquietude and contradiction of relational thought cannot cease as long as there is an Other involved. He is not content with half measures. If there is any sundering or separateness, if there is a vestige of otherness remaining, we do not get nearer than mere knowledge by acquaintance. There will still be dissatisfaction, actual or possible,—at least the possible dissatisfaction of not being able to occupy the standpoint of that which is other than you. The ob-

jection could not be brought forward that you could occupy the standpoint of that which is other than you, for if you did the Otherness would disappear and leave only the self, and this means coming round to the Vedantic position of the unity of the self and the universe. Thus in the realization of the Absolute, if there is to be an end to the disquietude arising from finitude, it can only be in some sort of ineffable immediacy in which all otherness disappears, in which very thought and reason are quenched. So the Vedantist speaks of the *Atman* or self as its own light, "the light of lights," even as Kant spoke of "the good will," the jewel that shines by its own light. In a superb verse in the Upanishads (I use Deussen's translation), the thought is expressed that

"There no sun shines, no moon, nor glimmering star,  
Nor yonder lightning; the fire of earth is quenched;  
From him, who alone shines, all else borrows its brightness,  
The whole world bursts into splendor at his shining."

Thus the Vedantist comes to deny the manifold realities of the finite world. He says they are illusory. And why are they illusory? It is precisely because they cannot be independent of the knowledge of them, and this means that reality must be one; but since there must be no duality even in this One, therefore it must be knower and known and knowledge in One. Reality is not a sum of parts, not an aggregate of many, but all as one. The realist can also say that being is one. But the so-called monistic realist is really a dualist, for he still interprets the One as being independent of all knowledge of it. How would it be possible then to escape the pitfall which besets the realist? This is done by saying the world is one because its oneness is my oneness and I myself am Brahma, the world principle. I am the All. And I, as Brahma, am not independent of the idea that knows me for I am identical with it. Thus the absolute unity is at once absolute reality and absolute



knowledge. But this absolute knowledge excludes the dualism of subject and object, knower and known, and excludes every kind of synthesis and relation. The unity is not to be sought for without, for all search for an Other as is involved in finite thinking brings disquietude and contradiction. The unity is my unity and is therefore within. As Uddalaka, instructing his son and disciple, says so often, "Believe me, O gentle youth, what that hidden thing is, of whose essence is all the world, that is the reality, that is the soul, that art thou." But the way in which this self is, cannot be expressed in terms of our empirical knowledge. In winning oneness with it the very reason is quenched in an absolute immediacy, which is the cessation of all finite process of striving and thinking. The plurality involved in thought and desire is itself illusory. If then in very truth there is no variety, why does the Vedantist still behave as if there were diversity and manifoldness? The answer is that he himself, like any other being caught in the net of illusions, is struggling with them; and to him it is as if there were diversity, whereas really, if he could attain the higher transcendent standpoint, he would realize that there is none. But if it is asked whence comes this *Avidya* or ignorance through which we get entangled in *Maya* or the great world-illusion, the only answer is that the question is inadmissible, for the category of causality does not apply to what is beyond this world of our relational empirical knowledge. Causality itself is a part of the illusion. Now, as already stated, the One of the Vedanta cannot be reached by discursive thought, by means of our intellectual knowledge; the duality of subject and object must be transcended. This is why Brahma can be characterized only negatively. *Neti, neti*, it is not thus, it is not thus—is all that can be said from this lower standpoint, from this world of unrealities, this world of contradictions and oppositions. And since the Absolute is defined as ab-

sence of finitude, since all finite ideas about it are abandoned as vain, it is said that the Absolute is really equivalent to nothing. It is argued that the Absolute of the Vedantic mystic gets its very perfection from a contrast effect.

Mysticism as a conception of being is said to be a conscious abstraction and to be the logically precise and symmetrical counterpart of realism in that each doctrine seeks an absolute finality—a limit which is conceived solely by virtue of its contrast with the process whereby our ideas tend toward that limit, and that neither can tell what it means by its goal. Now with realism we have already dealt, but the criticism fails when directed against the Vedantic position. It is not justifiable to ask of the Vedantist what he means by his goal, for enough emphasis has already been laid on the Absolute inaccessibility of the Brahma to all empirical knowledge. For the Vedantist to know is to be, and therefore to tell the meaning of the goal would be to be the goal itself. Vedantism cannot escape from its finitude by words, ideas, by any intellectual relational knowledge, for these are finite. The defect is in them. Finite thought can lead you to posit a higher transcendent standpoint in which the sundering of subject and object is not involved. It can point beyond itself to an "ultrarelatational intuition" by which the absolute unity may be grasped. But one must not expect to arrive at the Absolute by means of finite thought itself. Therefore it is inadmissible to demand of the Vedantist that he should define the content of his Real Being, for this simply means asking him to translate in terms of ideas what he has already said beyond all ideational process. All he can do is again to repeat that to know is literally to be and that therefore so far as empirical knowledge is concerned the Absolute can only be defined negatively.

In this connection one recalls the beautiful story in the Upanishads, where King Vashkali asks Bahva, the sage,

to explain the nature of Brahma to him. Thrice the king addressed him: "Teach me, most reverend sir, the nature of Brahma." But Bahva the Wise remained silent. And finally, when the king repeated his demand, he replied, "I tell it you, but you do not understand it; this *Atman* is silence." Thus Bahva sought to show that Brahma is not won by looking outward. Bound Prometheus-like to the frame-work of the categories and the innate forms of perception, we are shut out from an intellectual knowledge of Brahma, that which rises above all categories and forms of perception. But we come to God by absorption into our own self, for as so often repeated throughout the Upanishads, the Brahma is the self and I am Brahma,—a fearless synthesis indeed; but the seeker after truth does not dread the consequence of his search, for he "dares to be wise."

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## THE TRINITY.

"Die Dreifaltigkeitslehre vertieft den Begriff Gottes und macht dessen Vermenschlichung unmöglich.—*Ein deutscher Mystiker.*

STRANGE world, bewildering in its complex beauty  
And yet so simple in its constitution!  
Unfathomed in its depth and unexhausted  
In possibilities of startling changes,  
The universe remains an unsolved problem.  
How varied in its forms, how infinite  
In its unending whirls, original  
In every spot and new at every moment,  
Yet always all its laws remain the same!  
And this unaltered, this unbroken sameness  
Is rigid uniformity evincing  
The simplest rules of truths self-evident,  
Of axioms that are plain—as straight and clear  
As are the rays which from the distant stars  
Reach us like greetings from the worlds beyond,  
Revealing to us by inspiring visions  
The depth and grandeur of the universe.

Yea, straightness is the mystery of being;  
The plainest, simplest facts present the problem.  
Of all the riddles that confront the search  
Of our unsatedly inquiring souls.  
It is the simplest truth which baffles most.

Nature surrounds us. Like an open book  
It lies before us, and we can decipher  
Its most amazing and most intricate  
Phenomena if we but understand  
The simplest truths of its most certain laws,  
Of laws that all are ultimately one.  
In their innumerable applications  
These laws produce varieties untold;  
Yet they agree, they harmonize, and all  
Remain one and the same in their unbroken  
And their unaltered uniformity.

This uniformity throughout existence,  
This omnipresent and intrinsic order  
Patently simple and yet so profound,  
Renders the world a wondrous cosmic whole,  
And thereby makes the universe divine.  
For its intrinsic oneness, systematic  
And all-consistent—this is God. Aye this  
And this alone, is God, the real God.

God is immutable and omnipresent.  
He is the law supreme that never changes.  
In truth, He is Eternity itself.

But God is more; God is not stagnancy,  
Not tedious sameness nor monotony.  
God is life's law, life's governor, life's guide,  
He is the law in its eternal action.  
God is the truth applied; He manifesteth  
His very being as the world's creator.

Creation is the living God; creation  
Proves God's existence; it is God at work;  
In Nature God appears, and Nature truly

Is He himself. In Nature He reveals  
And manifests His will. The universes,  
Unfolding evolutionary life,  
Are God made visible, God in the making.  
'Tis God who stirs in genesis of being;  
He is its actuality, and He  
The law that dominates and molds its life,  
The norm of Nature swaying its commotions.

'Tis God who comes to life as helpless babe  
Ayearn for consciousness. 'Tis God who grows  
In childhood and in youth. 'Tis He who struggles  
In us for truth and righteousness. 'Tis God  
Who is betrayed and bears the curse of sin,  
Who suffers on the cross and meets defeat  
In ignominious death, but from the tomb  
He rises to triumphant victory.

So God is both Creator and Creation;  
He is the Father and He is the Son,  
He is Eternity and He is Time.  
He is the Will immutable, yet also  
Is He the stir of life, its constant change.

So God would seem to contradict himself,  
To be at rest and yet to be in motion.  
But no, the contrast in his being is  
A higher unit, not a dualism.  
There is no split in God's divinity.  
The two are one, united in a Third.  
This third is the eternal aim of God.  
It is His purpose to be carried out;  
It is the future of great things to be;  
The spirit 'tis which animates ideals,

The plan it is of God's creative power,  
The plan and the direction of His will.

What is the pulse that beats in human hearts?  
What is the standard of our aspirations?  
And what the guiding star that leads us onward?  
The aim and hope that stablisheth our faith?  
Is not this also God? It is God's spirit  
That shines above as star of Bethlehem  
To lead the Magi on the way to truth,  
To newer truths of broader comprehension.  
It is the longing for a higher life  
That thrills the breath of martyrs. It is God  
Who animates the world with sacred aims,  
Inspires the hero to courageous deeds  
And fills his anxious heart with confidence,  
With noble purpose of self-sacrifice,  
And gives him strength to die for his ideals.

Here lies the secret of that mystery,  
That triune mystery, life's meaning, course and aim;  
It is the trinity of cosmic order,  
The trinity of God as Law supreme,  
As God revealed in glorious self-creation  
And as the aim and purpose of His work,  
As the ideal to be manifested.  
God, thou art One, but not one rigid unit;  
Thou livest in the contrasts of existence,  
And by whatever name we greet the last  
And ultimate foundation of our being  
We are but an effulgence of Thyself.

The God-intoxicated prophet claims  
That "Thou art One, one only, unbegotten  
And no begetter; Thou art God, not Father



And not a Son. Lord art Thou, Lord alone."  
God, Lord and King, all-merciful, almighty,  
Reveal Thyself, explain this deepest riddle,  
The problem of creative deity!

And in my heart the Still Small Voice was heard;  
It spake and answered, saying: God is God,  
God in Himself alone would be complete,  
But God, alone, would be mere non-existence;  
He'd be a law that finds no application,  
The All and Naught unlimited and blank,  
The infinite and zero all in one.  
God to be God, to be an actual God,  
Must manifest Himself, must live and work,  
For He appears alive but in creation.  
Thus only God becomes concrete in form,  
Thus only He reveals His dispensation.

The wild commotions of a gaseous whirl  
Change slowly into planetary systems,  
As all the turbulent and glowing masses  
Obey mechanic laws of cosmic order.  
Yea laws mechanic, necessary laws,  
Those truths eternal, are the thoughts of God;  
Eternal thoughts, thoughts of the Overgod.

God moveth step by step according to  
Th' eternal norms which constitute His being;  
And on the paths prescribed by God Himself  
Creation struggles higher, ever higher,  
To life and consciousness with joy and pain.

O God, Thou art not merely fashioner  
Of clocklike universes, nor art Thou  
An ego unit like a mortal man,

A Czar demanding flattery and worship.  
Thou art the Norm of all events that happen,  
Not as we think it in our abstract thought,  
Not as an empty abstract formula,  
But as it lives in every pulse of being,  
As in uncounted creatures it appears  
And also here in noble aspirations  
Of our own souls. Man is Thy son indeed.

And as Thou gainest consciousness in man  
We call Thee loving Father of us all.  
We cannot think but it is Thou who speakest  
In our reflections; we, our souls, our being,  
Are but Thyself as Thou in flesh and blood  
Would'st come to life. Our struggles and our cares  
Are but the passion which Thy Godhood suffers  
Returning to Thyself; for Thou again  
Art and remainest our eternal hope.  
And thus the One and All encompasseth  
In its eternal rounds of cosmic life  
The triune presence of divinity,  
As God, our Father, the Eternal One,  
The cause of all existence and its law.  
He also animates this life of ours  
And liveth in our hearts as God the Son,  
The seeker after truth; the suffering God.  
Seeking and suffering, yea, but for a Vision  
For he sees God, our Hope, our final Refuge,  
Our light and inspiration and our aim,  
All three are One; and we are part of Him.

## CRITICISMS AND DISCUSSIONS.

### THE "LECTIONES GEOMETRICAE" OF ISAAC BARROW.

In an article which appeared in the February number of *The Open Court* I gave a short summary of the life of this famous mathematician, and endeavored to suggest a reason for the unfair estimate of his worth, especially with regard to his work on the drawing of tangents, formed by contemporary continental mathematicians, and quoted with approval by the writer of the article on "Barrow" in the *Encyclopaedia Britannica*. I suggested that his reading, his training and his disposition all tended to make him a confirmed geometer, with a dislike for, a possible distrust of, and even a certain infacility in, the analytical method of Descartes; that this, together with the accident of his connection with Newton, in whom he recognized a genius peculiarly adapted to analysis, and Barrow's determination to forsake mathematics for divinity, had resulted in his making no attempt to complete the work he had so well begun; and that, therefore, to form a proper conception of his genius, it was necessary to read into his work what might have been got out of it, and not stop short at what was actually published under Barrow's name.

As examples of what can be read into Barrow's work, let us take the following instances, most of them referring to the principles underlying the infinitesimal calculus.

#### Example 1 (*Lectio VII*, 14).

"If  $A, B, C, D, E, F$  are in Arithmetical Progression and  $A, M, N, O, P, Q$  are in Geometrical Progression, and the last term  $F$  is not less than the last term  $Q$  (the number of terms in the two series being equal); then  $B$  is greater than  $M$ ."

The proof of this is made to depend on a proposition that, if  $A, B, C, \dots$  is an arithmetical progression, and  $A, M, N, \dots$  is a geometrical progression, such that  $B$  is not greater than  $M$ ,

then any term in the geometrical progression is greater than the corresponding term in the arithmetical progression. Hence Barrow concludes that if, in the theorem above, B is not greater than M, then F must be less than Q, which is contrary to the hypothesis. He then deduces that, if  $F=Q$ , then  $B>M$ ,  $C>N$ , and so on.

Thus Barrow, and no more; now let us see what he might have got out of this if he had so chosen.

If Barrow's final conclusion is expressed differently we have:



Fig. 1.

Suppose that a straight line AB is divided into two parts at C, and the part CB is divided at D, E, F, G in Fig. 1 (i), and at D', E', F', G' in Fig. 1 (ii), so that AC, AD, AE, AF, AG, AB are in arithmetical progression, and AC, AD', AE', AF', AG', AB are in geometrical progression; then  $AD > AD'$ , . . . . .  $AG > AG'$ .

Expressing this algebraically, we see that, if  $AC=a$ , and  $CB=a.x$ , and the number of points between C and B is  $n-1$ , and H is the  $r$ th arithmetical and H' is the  $r$ th geometrical "mean" point; then the relation  $AH > AH'$  becomes

$$a+r.ax/n > a.[\sqrt[n]{\{(a+ax)/a\}}]^r;$$

$$\text{i. e., } 1+x.r/n > (1+x)^{r/n}; \text{ where } n > r.$$

Also, as CB becomes smaller and smaller the inequality tends to become an equality.

Moreover, if we put  $rx/n=y$ , and hence  $x=ny/r$ , then

$$1+y.n/r < (1+y)^{n/r}; \text{ where } n > r;$$

and the inequality tends to become an equality.

Naturally a man who uses the notation  $xx$  for  $x^2$  does not state such a theorem about fractional indices. But none the less he has the approximation to the binomial theorem; that is, all that is necessary for him to obtain the gradient of  $x^{n/r}$  or  $x^{r/n}$ , where  $n > r$ , although it is concealed in a geometrical form. We may as well say that the ancient geometers did not know the expansion for  $\sin(A+B)$ , when they used it in the form of Ptolemy's Theorem, as say that Barrow was unaware of the inner meaning of his proposition. Also from the *a fortiori* method of his proof it is evident that he knew that the relative error was less than  $x/n$ . It may be objected that

this is insufficient to make the relative error negligible, no matter how small  $x$  may be. But these old geometers could use their geometrical facts with far greater skill than many mathematicians of to-day can use their analysis. Barrow does not require to know the magnitude of the error at all; he only requires to know that the inequality in the above example is always in one direction, i. e., the geometric always less than, or always greater than, the corresponding arithmetic mean. The way in which the theorem is used, which indeed is his general method for drawing tangents, is of striking ingenuity. Barrow starts with a very small, so to speak, stock-in-trade; he is able to draw a tangent to a circle, and also to a hyperbola of which the asymptotes are known, and he has the fact that a straight line is everywhere its own tangent. The tool that he most often uses is the hyperbola; and when he cannot immediately find a construction for a tangent to a curve, he draws a hyperbola to touch the curve, and then draws the tangent to the hyperbola. His criterion of tangency is the following:

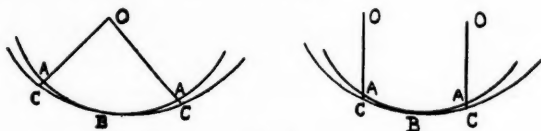


Fig. 2.

A straight line and a curve, or two curves, will touch one another if one curve lies totally outside or inside the other line. That is, the curves ABA, CBC, touch one another, if  $OA < OC$ , whether O is supposed to be some fixed point, or the straight lines CAO are all drawn parallel to some straight line fixed in position. This criterion is important, as it will be referred to later.

In the next example chosen he does not however use any of the above three tools; for, finding that the curves formed from the arithmetical and geometrical means of the same order are such that he can draw a tangent at any point of the former in a very simple manner, he uses this as his auxiliary curve to find the tangent at any point of the latter.

#### Example 2 (*Lectio IX*, 1).

*"Let the straight lines AB, VD be parallel to one another; and let a straight line DB, given in position, cut them; also let the lines*

*EBE, FBF pass through B and be so related that, if any straight line PG is drawn parallel to DB, then PF is always an arithmetical mean of the same given order between PG and PE; also let BS touch the curve EBE. It is required to find the tangent at B to the curve FBF."*

The construction given is:

Make  $DS:DT = FG:EG$ ; and join BT. Then BT is the required tangent (see Fig. 3).

The proof is as follows:

$FG:EG = DS:DT = LG:KG$ ; hence, since  $KG < EG$ ,  $\therefore LG < FG$ . Therefore BT is the tangent.\*

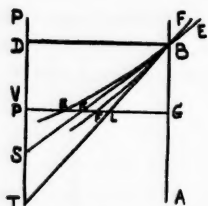


Fig. 3.

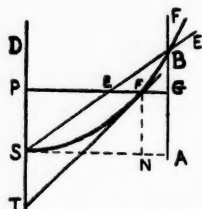


Fig. 4.

Barrow then makes use of the theorem on arithmetical and geometrical means, given as our first example, to show that the same construction holds good if PF is a geometrical mean of the same order between PG and PE, by proving that the curve formed from the geometrical means touches the curve formed from the arithmetical means at B. Lastly, he shows, by the use of an analogous curve, that a similar construction can be used for drawing the tangent at any point F on the curve FBF, provided that the tangent at the corresponding point E on the curve EBE is known (see Fig. 4). He then adds the remarkable note:

*"It is to be noted that if EBE is supposed to be a straight line, the line FBF is one of the parabolas or paraboliform curves. Wherefore, what is generally known about these curves (deduced by calculation,\* and verified by a sort of induction, yet not anywhere proved geometrically, as far as I am aware) flows from an im-*

\* This undoubtedly refers to the work of Wallis.

\* Note, in passing, that this is equivalent to saying that the gradient of  $f[x.r/n + a.(n-r)/n]$  is  $r/n$  times the gradient of  $f(x)$  at the point where  $x = a$ .

*mensely more fruitful source, and covers innumerable curves of other kinds."*<sup>†</sup>

Now if, in Fig. 4, which shows Barrow's method of drawing the tangent at any point F of the paraboliform FBF, we take SA and SD as the axes of coordinates, and suppose that PF is the  $r$ th mean, out of  $n$  means,<sup>‡</sup> between PG and PE, so that  $PT:PS = n:r$ , and  $SA = a$ ,  $PE = b$ ,  $SP = mb$ , where  $m$  is the gradient of EBE; then for the curve FBF, we have

$$y = FN = SP = mb; \text{ and } x = SN = PF = a \cdot (b/a)^{r/n} = b^{r/n} \cdot a^{(n-r)/n};$$

and the equation to the curve FBF is

$$(y/m)^{r/n} = x/a^{(n-r)/n} \text{ or } y = K x^{n/r};$$

whilst the gradient of the tangent at F is

$$PT/PF = (n/r) \cdot (PS/PF) = (n/r) \cdot (y/x) = (n/r) \cdot K x^{n/r-1}.$$

Thus the gradient is found for any curve of the form  $y = K x^{p/q}$ , where  $p > q$ ; and, by interchanging the axes, for any curve of the form  $y = K x^{p/q}$ , where  $p < q$ .

*Note.* The axes are not necessarily rectangular in Barrow's figure; though of course in the consideration of the gradient they are taken as rectangular.

In the face of the note quoted in italics above, I submit that it is idle to contend that Barrow was not aware of the significance of his theorem; but as before, he was not prepared to use the index notation, let alone fractional indices. For this reason, most probably, he also leaves the point that, if EBE is a hyperbola, so that  $PS \cdot PE$  is a constant,  $m$  say, then  $y = m/b$ , and the equation of the curve FBF is of the form  $y = K x^{-p/q}$ .§

Thus Barrow proves geometrically and rigidly, without any difficulty about the convergence of the binomial theorem, that in general, if  $y = K x^n$ , then  $dy/dx = n \cdot y/x$ . He could have drawn the tangent, or found its gradient, by the method which he either thought little of, or affected to despise—*ex calculo* (observe the half-sneering comparison between the methods of calculation adopted by Wallis (?) and a geometrical proof, in the parenthesis in Barrow's

<sup>†</sup> In other words, the gradient of  $f(x^{r/n} \cdot a^{(n-r)/n})$  is  $r/n$  times the gradient of  $f(x)$ , at the point where  $x = a$ .

<sup>‡</sup> It should be observed that Barrow defines previously such a curve as the locus of F as "having an exponent  $r/n$ ."

<sup>§</sup> He does this in a considerably harder way in *Lectio IX*, 10; from this general theorem the case when EBE is a straight line is deduced in exactly the same way as for the paraboliforms, and yields the hyperboliforms  $y = K x^{-p/q}$ .



note, as quoted above). Thus Barrow is in possession of a method for differentiating any explicit algebraic function of  $x$ ; for he has another theorem connecting the tangents to two allied curves, the ordinate of one being proportional to a power of that of the other. For instance, he could have differentiated such a function as

$$(x+a)^{2/3} + (x^2-a^2)^{3/4}.$$

Of course Barrow does not consider such a case as this; at least, he has not got a theorem to draw a tangent to a curve, whose ordinates are the sum of the ordinates of two other curves, of which the tangents at every point are known.\* Such a construction is easy; but the point I make is that Barrow was in a position to do any differentiation of this kind, by calculation, if he had had a mind to.

Further, by combining this method with the "differential triangle" method (the well-known " $a$  and  $e$ " method—the prototype of the " $h$  and  $k$ " method of the ordinary beginner's text-book of to-day), he could have differentiated implicit functions also, again by calculation. As examples of the "differential triangle" method Barrow takes the *Folium of Descartes* and the *Quadratrix* amongst others. A third example is of even more interest. Barrow finds the subtangent of a curve, which turns out to have an equation  $y = \tan x$ ; moreover, he leaves it in such a form (namely,  $t:m = rr:rr+mm$ ), that it is only necessary to put  $r=1$  and  $m=y$ , in order to obtain

$$dy/dx = m/t = 1 + y^2 = 1 + \tan^2 x = \sec^2 x.$$

In addition, the pair of figures that he gives could equally well have been used to find the subtangent for  $y = \sin x$ , in a form that immediately yields  $dy/dx = m/t = \cos x$ ; but he winds up by saying, "These would seem to be sufficient to explain this method."

It is of course well known that Barrow was the first to perceive that differentiation and integration were inverse operations. This is proved in a very simple manner by means of a theorem and its converse.

In Fig. 5, ZGEG is a curve such that the ordinates to an axis VD continually increase (or decrease) from left to right. VIFI is

\* This ability to deal with irrational algebraic functions, and that too without the binomial theorem, constitutes perhaps Barrow's greatest advance on the work of his predecessors on the infinitesimal calculus; although it by no means constitutes his only claim to great genius.



the space ADLK shall always be equal to the rectangle contained by R and DB.

For if  $DE = R$ , and the rectangle BDHI is completed, and MN is taken to be an indefinitely small arc of the curve AB, and MEX, NOS are drawn parallel to AD; then we have

$$NO : MO = TF : FM = R : FZ;$$

$$\therefore NO.FZ = MO.R, \text{ or } FG.FZ = ES.EX.$$

Hence since the sum of such rectangles as  $FG.FZ$  differs only in the slightest degree from the space ADLK, and the rectangles  $ES.EX$  from the rectangle DHIB, the proposition follows quite obviously.

These proofs compare favorably with the usual analytical proofs; and they show that Barrow not only appreciated the fact that differentiation and integration are inverse operations, but also recognized the necessity of proving the fact both directly and conversely. As I have mentioned, this is fairly well known; but what does not seem to have been remarked is that Barrow ever made any use of the theorems. However in the appendix to *Lectio XI*, where he develops the work of Huygens on the measurement of the circle, Barrow quotes formulas for the area and the position of the center of gravity of any paraboliform; but he states "*of which the proofs follow without much difficulty in various ways from what has already been shown,*" and leaves the rest to the reader. As a matter of fact, the proofs do follow quite easily, as is shown below; moreover Barrow could have found the radius of gyration of a paraboliform, or other power summations, practically amounting to  $\int y^n dx$ , by means of theorems previously given.

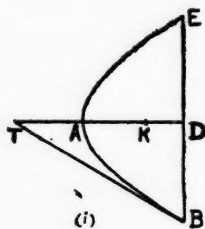


Fig. 7 (i)

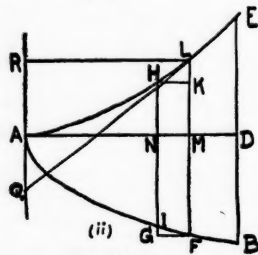


Fig. 7 (ii)

"If BAE is a paraboliform curve whose axis is AD and base or

ordinate BDE, BT a tangent to it, and K the center of gravity; then, if its exponent is  $n/m$ , we have

Area of BAE =  $m/(m+n)$  of AD.BE;  $TD = m/n$  of AD;

and  $KD = m/(n+2m)$  of AD." [See Fig. 7 (i).]

Suppose, in Fig. 7 (ii), that AHLE is a paraboliform whose exponent is  $r/s=1/a$ , say; let H be a near point to L on the curve, so that HLK is Barrow's "differential triangle"; then  $LK/HK = \text{gradient} = QR/RL = a$ .  $AR/RL = a$ .  $LM/AM$ ; and conversely.

Let AIFB be another curve, such that  $FM/R = LK/HK = a$ .  $LM/AM$  always, then, as has been shown, area AFBD = R.DE always.

But in this case we have

$$IG:FM = LM/AM - HN/AN:LM/AM,$$

$$= AM.LK - LM.HK:LM.AN,$$

$$= (a-1).LM.HK:LM.AN;$$

$$\therefore FG/GI = 1/(a-1) \text{ of } AM/FM.$$

Hence AIFB is a paraboliform, vertex A, axis AD, and exponent equal to  $a-1$ . Conversely, if AIFB is a paraboliform whose exponent is  $n/m (=a-1)$ ; then the integral curve AHLE is a paraboliform whose exponent is  $1/a$  or  $m/(n+m)$ ; and since  $DB/R = a$ .  $DE/AD$ , the area AIFBD = R.DE =  $m/(n+m)$  of AD.DB.

Similarly, area ALED = AD.DE -  $(n+m)/(n+2m)$  of AD.DE

$$= m/(n+2m) \text{ of } AD.DE;$$

$$\therefore R.a.\text{area ALED}:AD.\text{area AFBD} = n+m:n+2m.$$

Now since  $FM/R = a$ .  $LM/AM$ ,  $\therefore FM.AM.MN = R.a.LM.HK$ ; hence, summing, we have  $AK.\text{area AFBD} = R.a.\text{area ALED}$ ;

$$AK:AD = n+m:n+2m, \text{ or } KD = n/(n+2m) \text{ of } AD.$$

In a similar manner the radius of gyration could have been found from the sum of  $FM.MN.AM^2 = R.a.LM.HK.AM$ ; and so on for higher powers of AM.

There are many other ingenious propositions, although these are perhaps not of such general interest as those that have already been given. But they all go to show how far above the ordinary

the genius of Barrow was, especially when we remember how short was Barrow's professional connection with mathematics, and the relatively large and varied amount of matter that came from him in this time.

For instance he proves that, if  $ZD + AD$  is constant, then  $ZD^m \cdot AD^{m-2n}$  is a maximum, when  $ZD:AD = m:m-2n$ .

The proof of this theorem is generally ascribed to Cardinal Ricci, who published it in 1666. Remembering that these lectures were given in 1664-5-6, there is at least a doubt whether Barrow had not anticipated him. Even if he did not, Ricci's proof is made to depend on a lemma that if a magnitude is divided into  $r$  equal parts, their continued product is greater than that obtained by dividing it into  $r$  parts in any other manner. Barrow deduces it as an easy and immediate consequence of his theorem on a tangent to a paraboliform already quoted; so that Barrow's proof is inde-

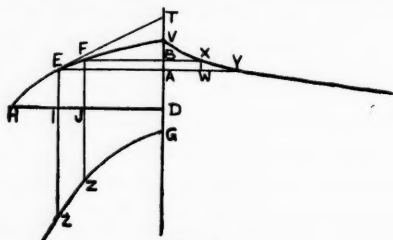


Fig. 8.

pendent of Ricci. Barrow also shows that  $ZD^m \cdot AD^{2n-m}$ , where  $2n > m$ , is a minimum under similar circumstances.

Again, he shows, by means of his beloved paraboliforms, that if  $AB$  is the arc of a circle whose center is  $C$ , and  $BD$  is drawn perpendicular to the radius  $AC$ , then the arc  $AB$  lies between

$(3CA \cdot DB)/(2CA + CD)$  and  $(2CA \cdot DB + CD \cdot DB)/CA + 2CD$ ; hence, taking the arc to subtend 30 degrees and the radius of the circle to be 113, he finds that the limits of the semi-circumference are 355+ and 355-; thus verifying in a rigid manner the ratio  $355/113$  or  $3^{16}/_{113}$ , which was found by Metius in the 16th century, by an unjustifiable but fairly obvious manipulation of the two limits  $3^{15}/_{106}$  and  $3^{17}/_{120}$ . In the course of proving the preliminary lemmas for the geometrical limits given above, Barrow in effect integrates the function  $a \cdot \cos^{-1} x/a$ .

Another striking instance of Barrow's (shall I call it con-

tributary laziness?) is the omission of the proof of the theorem of Lecture XI, § 27.

"Let VEH be any curve, whose axis is VD and base DH, and let any straight line ET touch it; draw EA parallel to HD. Also let GZZ be another curve such that, when any straight line EZ is drawn from E parallel to VD cutting the base HD in I and the curve GZZ in Z, and a straight line of given length R is taken; then at all times  $DA^2 : R^2 = DT : IZ$ .

"Then  $DA : AE = R^2 : \text{space DGZI}$ ."

The omitted proof would have run as follows:

Let VXY be a curve such that, if EA produced meets it in Y, then  $EA : AD = AY : R$ . Divide the arc EV into an infinite number of parts at F, M, etc. and draw FBX, MCX, etc. parallel to HD, meeting VD in B, C, etc. and the curve VXY in the points X; also draw FJZ, MKZ, etc. meeting HD in J, K, etc. and the curve GZZ in the points Z.

Then  $AY \cdot AD \cdot BD = R \cdot EA \cdot BD = R \cdot (EA \cdot AD + EA \cdot AB)$ ,

and  $BX \cdot AD \cdot BD = R \cdot FB \cdot AD = R \cdot (EA \cdot AD - IJ \cdot AD)$ ;

hence, if XW, drawn parallel to VD, cuts AY in W, we have

$WY \cdot AD^2 = WY \cdot AD \cdot BD = R \cdot (EA \cdot AB + IJ \cdot AD)$ .

But, as in previous theorems,  $EA : AT = IJ : AB$ ,  $AB \cdot AE = AT \cdot IJ$ ;

$WY \cdot AD^2 = R \cdot (AT \cdot IJ + IJ \cdot AD) = R \cdot DT \cdot IJ$ .

Now  $DA^2 : R^2 = DT : IZ = DT \cdot IJ : IZ \cdot IJ$ ;

$R^2 : IZ \cdot IJ = AD^2 : DT \cdot IJ = R : WY$ .

Hence, since the sum of the rectangles  $IZ \cdot IJ$  only differs in the least degree from the space DGZI, and the sum of the lengths WY is AY; it follows immediately that

$R^2 : \text{space DGZI} = R : AY = DA : AE$ .

The important points about this theorem are

1. that Barrow says "Perhaps at some time or other the following theorem, deduced from what has gone before, will be of service; *it has been so to me repeatedly*";

2. that, if DT and DH are taken as the coordinate axes, and it is taken into account that the tangent ET makes an obtuse angle

with the  $x$ -axis, then  $DT = x - y dx/dy$ ; also  $IJ = dy$ , and  $WY$  is  $d(y/x)$ . Hence the analytical equivalent of the equality

$$WY \cdot AD^2 = R \cdot DT \cdot IJ \text{ is } Rx^2 \cdot d(y/x) = R \cdot (x - y dx/dy) dy;$$

or 
$$d(y/x) = (x dy - y dx)/x^2.$$

Thus Barrow had the geometrical equivalent of the *differentiation of a quotient*, and found it of service repeatedly.

I will make one more quotation. As an example of a method of construction given for drawing, in general, curves such as the one given below, we have the following:

"Let  $AEG$  be a curve whose axis is  $RAD$ , such that, when through any point  $E$  taken in it a straight line  $EDM$  is drawn perpendicular to  $AD$ , and  $AE$  is joined, then  $AE$  is always a mean proportional between a given length  $AR$  and  $AP$ , of the order whose exponent is  $n/m$ . It is required to find the curve  $AMB$  of which the tangent at  $M$  is parallel to  $AE$ .

"I note, about the curve  $AM$ , that  $n:m = AE: \text{arc } AM$ .

"If  $n/m = 1/2$  (or  $AE$  is the simple geometrical mean between  $AR$  and  $AP$ ), then,  $AEG$  being a circle,  $AMB$  is the primary cycloid. Hence the measurement of the latter comes out of a general rule."

Thus Barrow obtains the fact that the arc  $AM$  of a cycloid is twice the corresponding chord of the circle. Most of the theorems on the cycloid are due to Pascal; but in the *Encyclopaedia Britannica* the rectification of the cycloid is ascribed to Wren. If the reference there given to the *Phil. Trans.* of 1673 is correct, it follows that Wren was anticipated by Barrow. It is well known that previously only one curve, the semi-cubical parabola, had been rectified.

Lastly it may be noted that many of Barrow's theorems in *Lectio XI*, when translated into analytical form, are nothing more or less than theorems on the change of the independent variable in integration. Thus he shows that

$$\int y dx = \int y/(dy/dx) dy, \quad \int r^2 d\theta = \int r^2 (d\theta/dr) dr.$$

Many other points might be made, but, in Barrow's words,

*Haec sufficere videntur.*

The two points now remaining to be considered are:

1. Why, if Barrow's genius and knowledge were so great, did he not complete the work he had so ably begun, and be hailed universally as the real originator of the calculus?



2. What influence did his predecessors have on Barrow, and what influence did Barrow and Newton have upon one another?

On the question as to the sources from which Barrow derived his ideas, there is some difficulty in deciding; and the narrowness of my reading makes me diffident in writing anything that might be considered dogmatic on this point; so that the following remarks are put forward more or less in the fashion of suggestions.

The general opinion would seem to be that Barrow was a mere improver on Fermat. But if we are to believe in Barrow's honesty the source of his ideas could not have been the work of Fermat. For Barrow religiously gives references to the ancient and contemporary mathematicians whose work he quotes. These include Cartesius, Hugenius, Galilaeus, Gregorius a St. Vincentio, Gregorius Aberd. (James Gregory of Aberdeen; in connection with this name, Barrow makes the noteworthy statement that he does not care to put his "*sickle into another man's harvest*"—the reference being to Gregory's work on evolutes and involutes), Euclides, Aristoteles, Apollonius and many others; but no mention is made of Fermat, nor does he use Fermat's method of determining the tangent by a maximum or minimum ordinate. On the other hand he may have deliberately omitted reference to Fermat, because his criterion of tangency of lines and curves was so similar to this method, that he might have provoked by the reference accusations of plagiarism. There is a distinct admiration shown for the work of Galileo, and the idea of time as the independent variable obsesses the first few lectures, an idea which he evidently obtained in the first place from Galileo, as did Newton also. But, like Newton, he simply intends this as a criterion by means of which he can be sure that one of his variables shall increase uniformly. Also, we learn from the preface that these preliminary chapters, in which he discusses time, were an afterthought; Barrow says "falling in with his (*Librarius*—the publisher, query Collins) wishes, I will not say unwillingly, I added the first five lectures."

The mental picture that I form of Barrow is that of the teacher, who has to deliver lessons on a subject, reading up everything he can lay his hands on, and then pugnaciously deciding that, although most of it is very good stuff, yet he can and will "go one better." In the course of his work he happens on the paraboliforms, perceives their usefulness, and is immediately led on to the great discovery of the "differential triangle" method. I think if any one

compares the figures used, (i) for the proof of tangency in the case of the paraboliforms, and (ii) for the infinitesimal method, he will no longer inquire for the source from which Barrow got his ideas.

Personally I have not the slightest doubt that it was a flash of inspiration suggested by the former figure (indeed it was this resemblance which caused me to put into analytical form the theorem chosen as example 2 above, and led me on to the translation of the whole work); it was Barrow's luck to have first of all had occasion to draw that figure, and secondly to have had the genius to have noticed its significance and to be able to follow up the clue thus afforded. As further corroborative evidence that Barrow's ideas were in great part his own creations we have the facts that he was alone in considering a curve as a collection of indefinitely short straight lines, and that, as he states in one place, he could not see any difference between indefinitely narrow rectangles and straight lines as the constituent parts of an area.

The answer to the question as to why Barrow did not com-

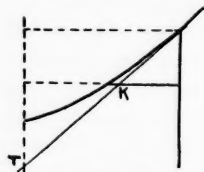


Fig. 9(i).

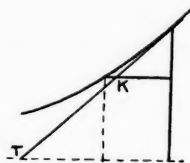


Fig. 9(ii).

plete the work he had begun is, I think, inseparably bound up with his connection with Newton; and I can imagine that Barrow's interest, as a confirmed geometer, would have been first really aroused by Newton's poor show in his scholarship paper on Euclid, for which Barrow was the examiner. This was in April, 1664, the year of the delivery of Barrow's first lectures as Lucasian professor, and, according to Newton's own words, just about the time that he (Newton) discovered his method of infinite series, led thereto by his reading of the work of Wallis and Descartes. Newton doubtless attended these lectures of Barrow, and the probability is that he would have shown to Barrow his work on infinite series (this seems to have been the custom of the time, for it is on record that Newton five years later, in 1669, communicated to Collins, through Barrow, a compendium of his method of fluxions). Bar-

row would be struck with the incongruity of a man of Newton's ability not appreciating Euclid; at the same time the one great mind would be drawn to the other, and the connection thus begun would inevitably have developed. Here we must consider that Barrow was professor of Greek from 1660 to 1662, then professor of geometry at Gresham College from 1662 to 1664, and Lucasian professor from 1664 to 1669; that Newton was in residence as a member of Trinity College from 1661 until he was forced from Cambridge by the plague in the summer of 1665; that, from manuscript notes in Newton's handwriting, it was probably during this enforced absence from Cambridge (and Barrow) that he began to develop his method of fluxions. From these dates I argue that Barrow most probably developed his geometrical work from researches begun for the necessities of lectures at Gresham College in the years 1662-3-4, and further elaborated them in the years 1664-5-6; that Newton would have not only heard these lectures before he had to leave Cambridge, but also would have had the manuscript to read, as a loan to a pupil from a master who had begun to take a strong interest in him; and that thus Newton would have got the germ of the idea from Barrow, but that the accident of the forced disconnection at this time made Newton follow the idea up in the manner and style which was essentially his own.

The similarity of the two methods of Barrow and Newton is far too close to admit of them being anything else but the outcome of one single idea. For the fluxional method the procedure is as follows:

1. Substitute  $x + \dot{x}o$  for  $x$  and  $y + \dot{y}o$  for  $y$  in the given equation connecting the fluents  $x$  and  $y$ .
2. Subtract the original equation and divide through by  $o$ .
3. Regard  $o$  as an evanescent quantity, and neglect  $o$  and its powers.

Barrow's rules are, altered in order for the sake of the correspondence:

2. After the equation has been formed (Newton's rule 1) reject all terms consisting of letters denoting constant or determined quantities or terms which do not contain  $a$  or  $e$  (which are equivalent to Newton's  $\dot{y}o$  and  $\dot{x}o$  respectively); for these terms brought over to one side of the equation will always be equal to zero (Newton's rule 2, first part).

1. In the calculation omit all terms containing a power of  $a$  or  $e$ ,

or products of these, for these are of no value (Newton's rule 2, second part, and rule 3).

3. Now substitute  $m$ , the ordinate, for  $a$ , and  $t$ , the subtangent, for  $e$ . This corresponds to Newton's next step, the obtaining of the ratio  $\dot{x}:\dot{y}$ , which is exactly the same as Barrow's  $e:a$ .

The only difference is that Barrow's way is more suitable to his geometrical purpose of finding the "quantity of the subtangent," and Newton's method is peculiarly adapted for analysis, especially in problems on motion. It is particularly to be observed that Barrow, in giving a description of his way, writes throughout in the first person singular. Although at the time of publication of the lectures Barrow had seen the fluxional method, or "a compendium" of it, as it passed through his hands on its way to Collins, yet he left his own method as it stood; probably he used it freely (he applies to it the words *usitatum a nobis*—the word *usitatum* being elsewhere written to denote *familiar* or *well known*; also mark Barrow's use of the more or less usual plural *nobis* in opposition to the first person singular when describing the method) to obtain hints for his tangent propositions, but not thinking much of it as a method compared with a strictly geometrical method, probably because he could not always find a geometrical construction to correspond; yet he admits it into his work "on the advice of a friend" on account of its generality. On the other hand Newton perceives the immense possibilities of the analytical methods introduced by Descartes, and develops the idea on his own lines, possibly owing to the accident of his being removed from the influence of Barrow for a short time.

There is however another possibility. In the preface we read that "as delicate mothers are wont, I committed to the foster care of friends, not unwillingly, my discarded child".... These two friends Barrow mentions by name, "*Isaac Newton*.... (a man of exceptional ability and remarkable skill) has revised the proof, warning me of many matters to be corrected, and adding some things of his own work"\*.... "*John Collins* has attended to the publication." It is just possible that Newton showed Barrow the idea of his fluxional method before he had developed it fully, and that Barrow developed it in some small degree as a tool for the purpose mentioned above, and inserted it into his work. At any rate it seems to be fairly plain that Newton was the friend on whose

\* Most probably in the *Optics*.

advice the method was inserted. I think however that the more probable alternative, judging from the later work of Newton, is that first given. This would explain the lack of what I have endeavored to make out to be the true appreciation of Barrow's genius. Barrow saw that the correct development of his idea was on purely analytical lines, he recognized his own disability in this direction and the peculiar aptness of Newton's genius for the task; and the growing desire to forsake mathematics for divinity made him only too willing to hand over his discarded child to the foster care of Newton and Collins "to be led out and set forth as might seem good to them," as he says in his preface. Who can tell what might have appeared in a second edition, "revised and enlarged," if Barrow, on his return to Cambridge as Master of Trinity and afterwards Vice-Chancellor, had had the energy to make one; or if Newton had made a treatise of it instead of a book of "Scholastic Lectures," as Barrow warns his readers that it is? But Barrow died two years later, and Newton was far too occupied with other matters.

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[Note.—Since writing the above article, the author has found that the *Lectiones Geometricae* form a perfect calculus. This will be explained in a forthcoming volume of the *Open Court Classics of Science and Philosophy*. —Ed.]

### POLYXENA CHRISTIANA.\*

A REVIEW OF BOUSSET'S "KYRIOS CHRISTOS."

"But she, though dying, none the less  
Great forethought took, in seemly wise to fall."

—Eur., *Hek.*, 568f.

By odds the most imposing and important apologetic of recent years is the deep-learned, deep-felt and deep-thoughted *Kyrios Christos* of Prof. Wilhelm Bousset, well known by his *Religion des Judentums*, his *Offenbarung Johannis*, his *Hauptprobleme der Gnosis*, and as editor with Wilhelm Heitmüller of the *Theologische*

\* This review, written in the first half of the year 1914, has been withheld from the press thus far, along with several other such essays, in the hope that after the cessation of hostilities in Europe it might more readily "fit audience find, though few"; but the coming of such a season seems now too likely to be indefinitely delayed.

*Rundschau*. True, it is in many ways a questionable service this large-minded and high-hearted scholar has rendered the cause of historicism, a "sad relief" like that brought the Briton by "the blue-eyed Saxon" of old. Even Bacon seems to view it askance, with suspicious eye, and Bousset himself foresees that his own "theses" will be held to "dissolve with Drews and B. W. Smith the person and Gospel of Jesus" (p. xv),—where the double inversion<sup>1</sup> is exceedingly rhetorical. Yet he holds that his "book is a continuous refutation of their theses" (xv)! Certainly the volume is a weighty one, most interesting, instructive and worthy of careful study. It teems with the most valuable truth and is in general informed by a spirit of great modesty, honesty and conscientiousness. However, in spite of all these and other excellences, the book fails entirely at certain critical and decisive points to yield the "continuous refutation" as which it is offered to the world. The nature of this failure it is not hard to make clear in general terms; a detailed examination such as the work deserves, as it would be a pleasure to give, and as would be entirely convincing, would call for several such papers as the present.

What then is the stately fabric of thought reared by the Göttingen professor? What sea-wall would he heave up against the rising tide of radical criticism? Bousset attempts a genetic reconstruction of the elements of proto-Christian doctrine, a restoration and rational exhibition of the original historic process through which the early Christian mind was carried from the days of the *Urgemeinde*, the first Church in Jerusalem, down to the great catholicizer, the heresy-hunting Irenæus. By rehabilitating this process more carefully, more systematically, more thoroughly, with greater learning and with higher plausibility than any one has done heretofore,—but more especially by reforming the whole front of the Liberal criticism, by abandoning stronghold after stronghold and advancing boldly forward to the radical positions and assuming them quite as if they were his own,—Bousset would persuade his readers that since all these things *may* have happened this way, therefore they *must* have happened and surely *did* happen just this way, that so did Christianity come into being. Now, to begin with, here is a logical lapse: the very most he could thus attain would be a more or less satisfactory theory, developed from the *hypothesis*

<sup>1</sup> Compare the words of A. Schweitzer in his *Leben-Jesu-Forschung* (p. 490): *Drews, wie seinem grossen Meister Smith.*

of an historical Jesus. But no such theory, even though far more satisfactory than our author's, could ever prove or verify the hypothesis; to do this latter he must not only show that his theory is perfectly satisfactory, that it explains all the facts in the case, but he must also show that no other theory developed from the opposite hypothesis either does or can explain all the facts in a manner equally satisfactory. Until he does this, it is quite impossible to convert his *may be* into a *must be*; and yet it is precisely this conversion that is absolutely essential to his argument. It is a more or less clear perception of this state of case that now leads discerning German critics to admit that the historicity of Jesus "cannot be proved," that it is at best "altogether probable" (*überaus wahrscheinlich*).

Now Bousset has made no effort whatever to meet these unescapable logical demands; hence his whole elaborate structure is swung in the air. The radical holds that *everything* so carefully explained by Bousset on the hypothesis of historicity may be explained fully and in fact far more readily on the hypothesis of the non-historicity; and until Professor Bousset takes this fact into account, all his learning and patience and constructive ingenuity are of little logical avail.

This is not nearly all, however. It is not enough to consider the facts, no matter how many nor how important, that may be readily explained on a certain theory; it is absolutely necessary to consider the facts that are *hard* to explain. It is precisely these that form the proper tests; to slight or to shunt them is to abandon scientific procedure. Now there is a host of facts assembled in *Der vorchristliche Jesus* and *Ecce Deus* that are admittedly very hard to fit into any theory of an historic Jesus; it becomes then the bounden logical duty of Bousset to consider these facts above all others, not one nor several nor many, but all of them, for all of them must be explicable on his hypothesis, *if it be correct*; not one can be excepted. The notion that by ingeniously ordering a great many other more tractable data, one may evade the logical necessity of fairly meeting and managing these seemingly unmanageable data,—this notion, no matter in what high quarters nor how zealously it may be cherished,—this notion is a delusion and a snare.

Such general considerations show plainly that our author has not fulfilled the logical requirements of the situation. At this point, though they cannot outbid him in other great qualities, such men as Schmiedel and Klostermann have shown a keener and surer



sense. Of these the former has seen clearly that such paths as Bousset's cannot conduct to the goal, that there *must* be discovered certain facts that can be explained on the hypothesis of historicity and cannot be explained on any other. This is exact science. There is no other way by which "the historical character of Jesus" can be saved. Schmiedel thought he had discovered nine such data and named them not inappropriately the Nine Pillars, and his disciples have thought to widen the sacred ring. But alas! this discovery has not been confirmed. The pillars are not such granitic facts as he supposed; at the touch of criticism they crumble, they have been abandoned even by historicists themselves. Klostermann admits that appeal to them is vain, that "new and doughtier weapons will have to be forged."

But it is not only such general logical dereliction that vitiates the thought-process in *Kyrios Christos*. Flaws scarcely less serious run this way and that, throughout its structure. Let us take some examples. *Tacit assumption* abounds in this work. The author speaks regularly of "Jesus of Nazareth," thereby assuming the historical character. Yet he must know that the better phrase is "Jesus the Nazarean," and that this adjective has, at least apparently, naught to do with Nazareth. "Of Nazareth" is merely a false interpretation of *Nazaraïos*, which such a critic as Bousset cannot countenance. At this point it is enough to refer to such as Oort, Friedländer, Burkitt, Abbott, Soltau, Vollmer, Burrage, and others.

Again, Bousset begins very properly with Jesus in the faith of the *Urgemeinde* (primitive congregation), which he calls Palestinian and locates definitely in Jerusalem (*die Gemeinde in Jerusalem*). Herewith he quietly assumes nearly everything. Who knows that this *Urgemeinde* was in Jerusalem? And how does he know it? From the first chapters of Acts? But Bousset himself rejects these repeatedly and decisively as unauthentic. Even Moffatt admits that the trustworthiness "rises" as the story advances. What is therein more pretentiously accurate than the account of Paul as persecutor? Yet Bousset assures us that it is all fiction. "By no means (*nicht einmal*) is it sure that Paul himself was concerned in the persecution at Jerusalem" (p. 92), though Wendt could declare he was its soul! The story in Acts ix. 1 ff. "bears the brand of the unhistorical plain on its brow" (p. 92). *Such was the contention in "Der vorchristliche Jesus,"* p. 26 f. Since in Acts we are dealing so largely with free creations and "not any way authentic documents"

(p. 97), all reason for placing the *Urgemeinde* in Jerusalem vanishes. But the immovable reasons against it remain, some of which have already been set forth in *Der vorchristliche Jesus* (pp. 24 ff.). The only natural thing for the Disciples to do after the crucifixion (if there was any) was to return to Galilee, and the oldest account represents them as so doing (Mark. xvi. 7; Matt. xxviii. 10, 16-20). The contradiction of Luke (xxiv. 47-53; Acts i. 4-8, 12 ff.; ii. 5, 14) is perfectly open, deliberate and intentional, and has a definite aim, to represent the propaganda as emerging from Jerusalem, *against the facts in the case*. Only think how utterly absurd! A few Galilean peasants beginning in Jerusalem a campaign for the deification of a man that had just been crucified in Jerusalem! How did these few fanatics support themselves in the midst of the crucifiers? Even at a very low cost for living they must have had some little bread—where did they get it in the midst of contemptuous enemies? What madmen to begin to preach Jesus as a God there in Jerusalem, where he had never done any mighty work, where his cause, whatever it was, had gone utterly and instantly to wreck! If Jesus were really a God-Man, if he really left his grave and rose from the dead and appeared to his disciples and endowed them with supernatural power from on high (as the orthodox logically maintain), then such a course might seem in itself possible, though still sharply contradicting the Gospels and the oldest tradition; but Bousset accepts not one of these allegations, he denies them one and all, and so must explain not merely the contradiction of tradition but also the incredible folly, the downright impossibility of the disciples' stay in Jerusalem. This he does not do, this he makes no attempt to do. No! The idea that the *Urgemeinde* was in Jerusalem is entirely baseless and defiant of common sense.<sup>2</sup>

Bousset himself must have felt the error of his thought at this point, for he writes very rationally about the proto-Christian Gentile church, justly recognizing it as one of "the weightiest of established facts" that the Gentile Christian church neither began with

<sup>2</sup> But even if correct it would not help historicism in the least. For of whom could the church have consisted? Surely not of Jerusalemites. Without amazing miracles they could not be converted, as the author of Acts clearly perceived. But if of Galileans, then the maintenance of the church becomes unintelligible, and the sudden spread in *two years* over the world (see p. 294) becomes incomprehensible and inconceivable. Think of a few Galileans in Jerusalem successfully preaching the Gospel of a Crucified and Risen and Deified Jesus and spreading it instantly over all the earth! Here we have an illustration of Bousset's characteristic method; he yields so much of the Liberal position to the Radicals that the little he would retain is no longer tenable.

Paul nor was determined by him, neither at Antioch nor at Rome nor elsewhere. "The full stream of the new universal religious movement was already at flood when Paul entered on his work, and he also was at first upborne by this stream" (p. 93). This is what was expressed far less picturesquely in *Der vorchristliche Jesus* (pp. 24 f., 28, etc.) by the multifocal origin of the early propaganda. One is delighted to find Bousset again in such full accord. Now remember that Paul's conversion is placed by Wendt at the very extremest date as only six years after the beginning, in the year 35, the crucifixion being placed in 29 A. D. Remember, too, that Deissmann's new Gallio inscription brings Paul to Corinth early in 50 A. D. instead of 53, as heretofore assumed, which reduces these six years to *three*. Remember also that Bousset places Paul's persecution in Damascus, where then there must have been a Christian congregation. So then we have the "universal religious movement" and the heathen mission flooding the world (*flutete*) at the very most within three years after the crucifixion and quite independently of Paul! In all of this Bousset, gladly agreeing with Heitmüller and sadly confirming *Der vorchristliche Jesus*, is entirely right, but how shall we reconcile it with the notion of an historic Jesus who (according to Harnack) had no notion of any world-mission, how with the notion of a narrow intensely Judaic *Urgemeinde* in Jerusalem, of whom Harnack says, "crushed by the letter of Jesus they died a lingering death"? What critic has attempted, what critic will attempt any reconciliation? We need not go beyond Bousset's own pages to find the final refutation of his contention. No! the proto-Christian movement did not issue from Jerusalem, it issued from the Jewish Diaspora, from the midst of the Hellenists. As Bousset himself recognizes, the representation in Acts is fictive on its face, and herewith the central pillar of the historicist theory crumbles into dust.

Once more, Bousset finds that the pivot of the Christology of the *Urgemeinde* was the conception of "Jesus as the Messiah-Son-of-Man" (*Jesus der Messias-Menschensohn*). Rejecting the notion that Jesus called himself the Son-of-Man, Bousset distinguishes two ideas concerning this Messiah-Son-of-Man; one of a Messiah, a "David's son," a more or less wonderful man; the other of a strictly "overearthly being, heavenly, spiritual, preexistent." *It is only as this latter* that Jesus appears in the earliest known faith of the *Urgemeinde*. Bousset is very cautious but nevertheless explicit.

"So soon as the Symbol in Daniel was interpreted messianically, just so soon must the Messiah become an overearthly figure" (p. 16. Cf. *Der vorchristliche Jesus*, p. 89). Nor can Bousset point to any stage in the primal faith at which this exaltation had not taken place; so far as we can see or know, *from the very first* Jesus was so conceived as the supramundane Son-of-Man. Here, as so often elsewhere, Bousset's words are worth quoting: "It may indeed (*es mag wohl*) in the beginning have been the prevailing opinion that Jesus as simple man (*παῖς θεοῦ*) walked here upon earth and was exalted (*erhöht sei*) to be Son-of-Man only after the end of his life. But certainly (*freilich*) the time is not at all distant (*gar nicht fern*) when Jesus will become out and out (*ganz und gar*) a heavenly spiritual being preexistent and descended from above" (p. 19). "*Es mag wohl*"! This sop to Cerberus was necessary. Surely it is tiny and wizen enough, what greed could grudge it? But such a "prevailing opinion" has nowhere a basis in tradition or in fact, its *problematic existence* is only an *inference* from the false assumed premiss of the pure humanity of Jesus. That any such opinion could have undergone any such "rapid" transformation, that the crucified Rabbi should have been transfigured almost instantly into a God, indeed into *the* God and made everywhere the Lord,—in Palestine, in Jerusalem, in far off and widely separated heathen capitals,—and the center of "the monotheistic Cult of the Jesus" (Deissmann), this is incredible if anything can be, and neither Bousset nor any of his peers has any explanation to offer. It is here, as elsewhere, that Bousset by his concessions (as his German reviewers complain) has given away the whole lost cause of historicism.

Such reflections as the foregoing are aroused from page to page of this great work, but we must hurry on. In *Ecce Deus* a section is given to the epithet Lord (*Kyrios*) as applied to Jesus, and it is argued that the early use of this term indiscriminately to denote both the Jehovah of the Old Testament and the Jesus of the New indicates clearly that the Jesus must have been thought as in some sense Jehovah, not perhaps as absolutely identically God but as representing the godhead in some vague way as an aspect or person thereof. This argument seems to stand yet unbroken in strength. Bousset seeks apparently to turn its edge by a very thorough study of the use of the term *Kyrios*. He finds it comparatively rare in the Gospels and Acts, much more frequent in the Paulines, and

concludes that it is characteristic of the Gentile church and derived not from Cæsar-worship, but from the heathen cults with which the church was surrounded, but he is careful to concede its regular use in this church from the very start. Now it might be granted that the example of the heathen cults around, with their Lord Osiris, Lord Sarapis, and the like, may have given occasion to the Gentile Christians to speak of their Lord Jesus. The question, however, is not, how did they come to use the term, but rather, how *could* they use it of a mere man, however exalted, or even of a supernatural being not in some wise identified with Jehovah, the Lord of the Old Testament? For it is well known that the early Christians were familiar with the Hebrew Scriptures in the Septuagint or other translation, that they recognized these Scriptures as the highest if not the only authorities, and that Lord (*Kyrios*) therein is the peculiar appellation of Jehovah, the supreme God. No matter, then, what the abandoned heathen cults might say, the Gentile Christians could not but know that Lord (*Kyrios*) meant the highest God, and it remains as hard as ever to see how they could use the term both of Jehovah and of Jesus (often indiscriminately), unless they in some manner or measure identified the two. While then Bousset's investigation is interesting and valuable, it merely answers a collateral question and leaves the original argument as well as the original difficulty untouched.

One other point. In accumulating instances of the term Lord applied to the center of a cult, it is noteworthy to find all are gods and not men, with one sole apparent exception, which Bousset pushes to the front, that of Simon and Helena: "Hippolytus reports of the followers of Simon Magus that they reverence Simon in the form of Zeus, Helena in the form of Athena, him calling Lord and her Lady. This very interesting notice is expressly confirmed by the representation of the pseudo-Clementine Homilies" (p. 117). Both these statements lack warrant. What Hippolytus says is that "they have an image both of Simon in form of Zeus and of Helena in form of Athena, and these (images or forms) they worship, him calling Lord but her Lady. But if any one by name shall call among them, having seen, the images whether of Simon or of Helena, an offcast he becomes as unknowing the mysteries." Whence it appears that they worshiped these images in form of Zeus and Athena not at all as Simon and Helena, but in all likelihood as symbols of mysterious powers of nature and of thought, and the charge that they were

worshiping Simon and Helena is merely one of many silly slanders that Bousset should not encourage. This view, and not the one quoted from Bousset, is confirmed by the Homilies, where we read (II, 25) that Simon "says he has brought down this Helena from the highest heavens to the world, this Helena being Lady (*Kyrian*) as all-Mother, substance and wisdom. . . . for she who is really the truth was then with God supreme." How little such high theosophy offended the early Christians is seen in the immediately following statement that "we (Aquila and his fellow Christians) were his (Simon's) fellow workers at first." Again (XVIII, 2): "We (Peter and Christians) do not hold, Simon, that from the mighty power also the Lordly (*Kyrias*) called, proceeded two angels, etc." Whence it appears as clearly as we could hope that the feminine form (*Kyria*) is used only because it refers to feminine nouns, abstractions, such as Power, Substance, Truth, Wisdom. Simon may have tried to explain the myth of Helen (as in fact is said in II, 25) in terms of these concepts, but to think of these Simonians (*an early name for Christian*,—Orig., *Con. Cel.*, V, 62) as worshiping Simon and Helena, is a conceit that blots the page of Bousset. Lastly, the clause "him calling Lord but her Lady" is simply a pious invention of Hippolytus, of course, "for the greater glory of God." The words are not in Irenæus (I, xvi, 3, Harvey), from whom this good Bishop is quoting. It is in fact almost too well known for statement that the Catholic representation of Simon is simply an atrocious slander, to which Harnack lends no sanction whatever, declaring Simon to have been "the counterpart of Jesus," who made "an attempt to create a universal religion of the highest God," of whom "the later tradition is the most distorted and tendentious conceivable." That this great monotheist Simon is the original of the Gospel Simon, into whom he has been transformed in Christian tradition under the name of Peter, is a proposition I have maintained for twelve years with unshaken confidence, without finding leisure for its open discussion. It seems very late in the day to remark that the whole legend of Simon, especially of his carrying round with him a harlot Helen, is an utterly scandalous libel, always with some a favorite form of argument. This one triple question, however, I would submit to critics who have some sense of depth, of a third dimension, in construing old Christian scriptures:

1. Is it possible to read Acts viii. 4-25, particularly 13, in connection with Origen, *Con. Cel.*, V, 62, and the whole Simonian legend,

especially such words as those quoted from Aquila, without feeling that *Simon Magus was a proto-Christian*, that he stood in some close and vital connection with the early propaganda, however he may have fallen later into disrepute?

2. Is it possible to read the Gospel story of Simon Peter, of his trying to walk on the water and failing, of his being rebuked as Satan, as a scandal, as minding not things of God but of man (Matt. xvi. 23, compared with Acts viii. 20-24), of Satan's desire to sift him (Luke xxii. 31), of his denial of Jesus, of his rebuke by the Risen One (John xxi. 15-23), of his (Cephas's) crookedness at Antioch (Gal. ii. 12),—is it possible to read all this in connection with the Simonian legend and not feel that Simon Peter also had much to his discredit in early Christian tradition, that he was most conspicuous as a proto-Christian leader, and yet that his antecedents left a great deal to be desired, and that it was not possible to set him forth as a genuine unwavering disciple of the Jesus?

3. Lastly, can it be an accident that the Fourth Evangelist so studiously relegates Simon to a secondary place, that he declares three times for no apparent reason and with no apparent ground that Iscariot was Simon's son, that he represents Peter as abandoning the cause and returning to his earlier craft ("I go a-fishing", xxi. 3), that he declares three times that Peter was "standing" (xviii. 16, 18, 25), although he must have known that the Synoptics declared he was "sitting" and that "standing" was the fixed and recognized epithet of Simon Magus? If all such indications be misleading, and all such coincidences mere chance, then farewell to the interpretation of documents and to the doctrine of probability.

In dealing with "the empty grave" and the resurrection, Bousset appears at his best. The former is dismissed like the snakes of Ireland—there was none. We are told that the resurrection was really the exaltation (*Erhöhung*), the installation of Jesus-Son-of-Man at the right hand of the Majesty on high, that it had naught to do with any resuscitation of the Crucified. In Phil. ii. 6 ff., Paul makes mention not at all of any resurrection, but only of the exaltation, which alone is emphasized in the John's Gospel also, where "rise from the dead" (xx. 9) and "when therefore he was risen from the dead" (ii. 22) are recognized as secondary additaments. With fine analysis this notion of the exaltation of Jesus is traced through the growing Scriptures, until finally "the belief in the exaltation of the Son-of-Man took the more concrete form, that he arose on



the third day bodily from the grave" (p. 79). This seems most excellently said and certainly correct. In the essay "Anastasis" in *Der vorchristliche Jesus* something very similar is hinted, "*Nur mit ein bischen andern Worten*," where it is maintained distinctly and at length that the locution "God hath raised up Jesus," referred originally not to any resuscitation but to the establishment of the Jesus in power as pro-Jehovah at the right hand on high, the phrase "from the dead" being recognized as a later addition. It is highly gratifying that Bousset has attained late but independently (for he makes no mention of the essay on "Anastasis") to views so very accordant, and this fact is a very strong guarantee of their correctness. In *Der vorchristliche Jesus* emphasis was laid upon the fact that the Hebrew *qûm* in the familiar Old Testament phrase "God raised up" is translated by the exact Greek of Acts, *anestēse* (thus Acts ii. 24, "whom God hath raised up" repeats the very Septuagint words of 2 Sam. xxiii. 1, "whom the Lord raised up"); Bousset likewise says, "finally the different formulae (also the *hypsōthēnai*) may go back to the Hebrew *qûm* (Hos. vi. 2, *yqimēnû*). On the whole, one may say, *Nun, man kommt wohl eine Strecke*.

Less satisfactory is Bousset's treatment of the general subject of "the miracle." His first and chief (though mistaken) effort is to minimize this element in the Gospel story. It seems to him a nimbus gradually thrown about the person of Jesus by the faith of the Congregation. In the earliest (Q) source it was comparatively insignificant. The Passion week also remained nearly quite free. Even in Mark some "most valuable" sections are without miracle, in others (as the first day of Jesus's activity) miracle is not in the foreground. We must always look to see whether "the interest" of the Evangelist is in the deed or in the spoken word. Still, he admits, "very early the conviction arose in the Congregation that miracles were the most important constituent of Jesus's life." So it must have been that "he did have the gift of healing, that he did cure the sick and drive out demons." Gradually tradition dipped the life of Jesus deep in the miraculous, far beyond healings and exorcisms. In some measure the Old Testament contributed to this result, which was mainly due however to the popular love of the wonderful. All sorts of marvelous stories told of others gathered round the form of Jesus, as clouds about mountain tops. Parallels may be found here and there both in Jewish and in pagan legends. From all sides miracles migrated into the life of Jesus and settled

there. In particular, the account of the Gadarene demons was at first merely a "funny story" (*lustige Geschichte*) of "poor deceived demons," but was afterward attributed to Jesus. Then there are certain "foreign bodies" also encysted in the life of Jesus, such as the transfiguration, pitched as high above as the Gadarene tale is below the ordinary level; such as the Cana miracle, which comes from the myth of Dionysos at whose temples in Naxos, Teos, Elis, such transubstantiation of water into wine was wont to take place; such, too, perhaps were the miracles of the feedings, which depict a god reigning among his people and dispensing his gifts. Like a magnet the personality of Jesus drew from all the environment all possible materials and legends to itself, where the skill of evangelic poesy fused them together so deftly that only the keen eye can recognize and discern the constituents.

Such is Bousset's diagnosis of the situation, and it might safely be left to the judgment of readers, for there are few whom it is likely to mislead. It is special pleading throughout and does no manner of justice to the most evident facts. That the Q source, a collection of sayings, should contain little reference to deeds, whether mighty or not mighty, is too natural for any comment, much less for any inference. But that the Mark source, almost if not quite as old, should be specially full of such marvels (as, generally admitted, in spite of Wendling's vivisection), is in itself a refutation of the theory of gradual accretion. Take the instance of the first day (Mark i. 14-34), to which Bousset strangely appeals as showing no main interest in the miraculous. In these twenty-one verses, Jesus calls Simon and Andrew, then James and John, all four instantly leave their nets to become fishers of men,—plainly in the meaning of Mark it is superhuman power that constrains them. Then Jesus enters the Synagogue and astounds all by his doctrine and authority,—again the deed is superhuman. There he meets a man with unclean spirit, who instantly recognizes Jesus as the Holy One of God, come to destroy such spirits. The man is cured instantly by a word of miraculous might. The people are amazed, his fame spreads instantly all abroad. Coming out of the synagogue Jesus enters Simon's house and instantly cures his wife's mother of a fever. The cure is complete, instantaneous, she rises forthwith and goes to work. At sunset all the sick and demoniac are brought to his door; he heals many and casts out many demons, and will not

let them speak, because they know him, recognize him as their destroyer.

So then it appears that this "first day" is one unbroken round of miracles, one long exhibition of superhuman might molding everything with equal ease to its will. How Mark could show any greater interest in the miraculous, it seems hard to see. The notion of the transmigration of the miraculous may be in some measure correct, but it is irrelevant even in its correctness. Doubtless a painter will and must dip his pencil into the dyes at hand, but this affects not the meaning of the picture he makes. Naturally the evangelist would draw upon the general milieu of phrase and fable, of thought and expression, for the materials and forms of his symbolism. Knowing nothing of leprosy he would not represent the sin-smitten world as a leper; having never heard of demons, he would not think of depicting the overthrow of idolatry as casting them out. But being familiar with the whole framework of contemporaneous life he did precisely as Homer and Kipling did, he boldly took whatever he did require, no matter what it was nor where he found it. Then he molded it to his own purposes and after his own ideals. He gave it his own meaning, he filled it with his own conceptions. Such is the method of every artist in every age.

Take the example of the wedding at Cana. The Dionysian parallel has not escaped my notice. It seemed and still seems possible that the particular form of the miracle was suggested by the classic myth. But what of it? Did John tell the story of Jesus simply because it had been told of Dionysos? Impossible. Whoever he was, this John was surely deep-thoughted and desperately in earnest. While it is conceivable that he might have told an actual incident just as a mere matter of history, without reflecting and without attributing to it any significance, yet it is quite inconceivable that he would invent such an incident or extract it from the mythology he despised and affix it to his Logos-God in mere wantonness, without intending something thereby. He must then have had some meaning, and this meaning was the symbolic sense of the miracle. The appeal to Bacchus merely emphasizes the necessity of understanding the miracle as a symbolism of the author's.

Similarly with respect to the exorcism at Gadara. Even if one admitted the queer conceit that it was a "merry tale" of "poor deceived devils" (thus attributing a Teutonic consciousness to the evangelist), yet this would explain only the unessential feature of

the swine, it would leave the formidable grandeur of all the rest untouched. And why should such a "funny story" of some vagrant exorcist be decked out in such regal attire and told of the godlike "center of the cult"? Here again it seems certain the fancy of the evangelist was not merely running wild, he was not talking solely to hear himself talk, he must have been narrating either because the incident actually occurred (in which case it was certainly worth preserving) or else because he *meant* something by it, because he had an idea that he wished to set forth; in this latter case, the miracle is a symbolism—and in fact too patent to escape the open eye.

The like may be said of the transfiguration; whencesoever may have come the materials and the general features of the composition, it is clear as day that the evangelists are *thinking*, they are not idle scribblers, and their *thought* is the symbolic content of the miracle itself.

In at least one case Bousset has seen and avowed the figurative sense. He speaks of the blind-born man of John's ninth chapter as "that symbol of the Congregation, born blind and become seeing," and he interprets the phrase "they cast him out" (ix. 34) as referring to the expulsion from the Synagogue of such as confessed the Son-of-Man (p. 22). Now there are many traits in this "blind-born" that remind us of Paul, as Thomæ sets forth, and to me he seems to typify the proselyte, but it makes no difference,—the point is that Bousset recognizes here a symbol and a symbolic statement of broad facts of early Christian history. If this be found necessary in the case of this miracle, which is adorned with so many details and so much local color, how much more must it be necessary in a score of cases where the symbolic sense lies stripped and bare and unmistakable?

Bousset says naught of the cripple at Bethesda, naught of the supreme miracle wrought on Lazarus. Since he recognizes the blind-born as a symbol, can he fail to recognize these as symbols also? Does any logical principle forbid the extension of this mode of interpretation? Does not the chief methodological maxim, the Principle of Parsimony, *require* its extension to every case where it *can* be applied?

The notion that the personality of Jesus attracted to itself all manner of marvelous elements, as a magnet draws iron filings, is the merest figment of fancy. What do we *know*, what have we

any ground to believe, about this personality as historical, that suggests such an idea? Nothing whatever. But if by *Personenbild* Bousset means the personality merely as it existed in the minds of proto-Christians, then, though the thought be in a measure just, it is without pertinence. For the question arises, How did they think of him? If as a man, then what in his humanity explains the magnetic attraction? If as a God, then indeed the attraction may be explained, but *cui bono*? Thereby the radical theomonistic view is strongly recommended, and the liberal andromonistic theory is not strengthened but is hopelessly weakened. The notion of Bousset seems to be a kind of *last resort*, which indeed assumes everything in dispute. This in fact Bousset does openly without any semblance of proof in declaring that "the historic reality of this life offered a certain basis for this further development (of the miraculous). For it cannot be denied that Jesus in his lifetime exercised the gift of healing the sick, and that healing the sick and "driving out demons" were characteristics of his wandering life" (p. 71). But it actually is denied with daily waxing emphasis, and why not deny it? How do we know that such was the "historic actuality"? Bousset is silent, he gives no hint. He merely assumes everything to be proved. Now the fact is that this notion of Jesus as a wandering healer and exorcist is utterly impracticable and intolerable to reason. Consider only that this "historic actuality," this "wandering life," (supposedly) began quite suddenly, without any reported premonition (the birth-stories are admittedly late inventions), that it lasted only a few months, and that it ended ignominiously on the cross. Instantly then the crucified is preached everywhere round the Mediterranean as the supramundane Son-of-Man, as the Lord in heaven. What possible "gift of healing" and of exorcism can make such a course of events in any degree intelligible? Such a human personality must have been unspeakably marvelous, and his followers unspeakably silly! The fact is that the historic view supposes that early Christianity was born and developed among a widespread community of madmen, that the whole Roman Empire was at that time virtually insane, even as Binet-Sanglé has inexorably expounded in *La folie de Jésus*. But even on this wholly extravagant hypothesis the cause of historicism is still lost. For if Jesus had really been such a living miracle we should have heard something about him in contemporary history and some traces of the wondrous man would have been left on the early Christian

consciousness, whereas contemporary history so far as it exists is absolutely dumb about any such man Jesus, and not the faintest trace of his memory or human personality can be detected in the early Christian consciousness itself. Bousset admits that the consciousness of the *Urgemeinde* is not of the man Jesus but of the supramundane Son-of-Man, and that there is no sign of such a human character in the religion of Paul (p. 143). According to the historicist theory the whole of early Christian times is a period of meaningless miracles.

But even if we were willing to admit all such, the case would be just as hopeless as ever. For all of these unmeaning marvels stand in the closest connectivity with an endless web of contemporary, antecedent and succedent religious and philosophic life, from which they cannot by any violence be extricated or torn away. Now in this connection this proto-Christian life is intelligible even in its minute details in the *absence* of any such prodigious personality as historicism assumes; and it is thoroughly unintelligible in this connection, even in the broadest outlines, in the *presence* of that personality.

Once more, Bousset makes appeal to the notions current at the time as favoring the hypothesis of such a wonder-worker and explaining in large measure the Gospel story. He thinks it was a superstitious age of miracle-mongers, when anything would be believed, and that the story of Jesus is fairly in line with many others. This is a favorite defense of the modern apologist, and it calls for careful consideration, but it is wholly incohesive and crumbles at touch.

It may be granted that marvelous stories have been told in every age of nearly every very notable man. These are in general very easily explained and need rarely mislead any one. But common sense says instantly and positively that they are not in any sense in line with the New Testament miracles. In all such cases there is a more or less firmwoven web of ordinary, perfectly credible narrative, close joined with the general fabric of human history, in which the miraculous elements appear as manifestly "foreign bodies" that can be shaken out or brushed off with little jar to the main structure. The miracles do not constitute the account, they are merely adventitious, often mere playful exaggerations, and not seldom transparent symbolisms.

But in the Gospels the case is wholly different. Here the

miracle is the very essence of the whole. Jesus appears, it is true, in a double character, as a Teacher or Lawgiver and as a Wonder-Worker. But even as a Lawgiver he is hardly less miraculous. For he teaches and legislates by his own immediate and personal authority ("But I say unto you," etc.). This he can do only by divine prerogative. He speaks even as God. "The Jesus says" seems quite parallel to "Thus saith Jehovah." Everywhere in the New Testament "the word of the Lord," i. e., of Jesus, is the court of last resort, is the end of controversy. So too his miracles are the deeds of his own might and person. He never appeals to God in working them. He invokes no name, he uses no instrumentality (a few apparent exceptions count for nothing). He does everything by his own word, by his own touch, by his own omnipotence. Moreover the story of Jesus exists for this Teaching and this Doing, and for nothing else. Take away these two notions, and what remains? Practically nothing at all. Even the Passion, though late and no part of the primitive Gospel, is set forth as a divine deed, not by any means as a part of the general fabric of history, but as an inroad from without, as his own voluntary self-surrender, as an act of God. Of human historical life proper of Jesus there is nothing in the Gospels whatever. Two or three incidents (as of the arrest by his friends, of blessing the children, of Mary and Martha) are exceptions only when misinterpreted,—as already set forth in *Ecce Deus*.

It is this manifest fact, that the story of Jesus is supernatural and nothing but supernatural, essentially and unalterably, from beginning to end, that distinguishes it finally and forever from all legendary stories of historic characters, where the historic and natural alone are essential and constitutive, while the supernatural is unessential, adventitious and easily removed. Whenever poetic fancy begins to weave legends about real heroes it produces results quite different from the Marcan source, textures in which the general course of human events is closely followed, with here and there a strange or marvelous incident thrown in for its edifying or glorifying effect. Such creations of fictive fancy are the first chapters of Matthew and of Luke, and even untutored literary feeling perceives at once that we enter another atmosphere in the third chapter.

If we would learn by example how the marvelous intrudes itself into history we cannot do better than to take the case of the great



Revivalist, Apollonius of Tyana. Some have thought his career so closely parallel to that of Jesus as to illustrate it and show that it was really historic. Others have found it so marvelous as to reject Apollonius himself as a creature of fancy. But the imagined parallelism is altogether unreal, in fact, on closer scrutiny there is revealed sharper and sharper contrast.<sup>8</sup> The career of Apollonius is in its broad outlines, and in nearly all of its details, perfectly credible and very little remarkable. The marvelous elements are rare and trivial, they may all be removed, like moles from a face, without disturbing its main features or its general character. The biographer himself has no notion that his hero was aught but a man among men, born of a woman, and bearing the same name as his father. He claims on the whole for this hero nothing beyond extraordinary insight, foresight, and possibly occasional second sight. This Tyanean lives a hundred or at least seventy years, his career is followed from period to period, it attaches itself almost blamelessly to received history from point to point, and wherever it may seem to violate probability the explanation is close at hand. All this does not indeed quite prove the historical character of Apollonius (since one might invent a thoroughly credible history), but it does show that his biography presents no serious problem.

All this we find reversed in the case of Jesus. In the older tradition, as Corssen admits, his career is quite timeless. It attaches itself neither to month nor to year. Only in later layers is there an evident attempt to connect the story with some era in history. Nor is anything known of his antecedents or family. The accounts in Matthew and Luke are patent contradictory fictions. In Mark and John the Jesus simply appears full-fledged from the first, like Athena, and at once begins a career of miracles. Though John would humanize and sentimentalize, though he makes Pilate declare, "Behold the Man," though he strives hard to represent the Logos as become flesh, yet he does not succeed, despite his unquestionable literary and religious and philosophic genius, in producing the portrait of a divine man, nay, not even of a lovely man. Strive as he will, the features of the God still shine through the human traits,

<sup>8</sup> Compare Norden's *Agnostos Theos*, pp. 35 f.: "When Hierokles, the foe of Christianity, compared this work of Philostratus with the Gospels and its hero with Christ, he indeed made the refutation easy enough for Eusebius [if only Eusebius had not been Arian!]; for literary connections there were none at all, and material parallels at most only in the sense in which F. Chr. Baur loved to conceive them. But the case is wholly different when the comparison is made with Acts."

which are plainly merely painted over and form no part of the primitive sketch. Say what you please, the Johannine Jesus is not lovely, is not attractive, as a man. There is much high-wrought theology and sublime religion in his discourses, and these we may greatly and justly admire. But these are manifestly merely the musings of John and give us no notion whatever of the man Jesus. Indeed the failure of the Evangelist to depict an attractive human personality is one of the most notable in all literature. His man Jesus is at every turn remote, austere, enigmatic, often mocking, unfeeling, unintelligible, and requiring apology. This is easily proved chapter by chapter.

What is there lovable in the Jesus of the first chapter? Nothing. In the Jesus of Cana? Nay, he is even stern and unfilial, the commentators must explain away his words. What in the Jesus in the Temple, where the deed is simply of power, not of justice or love? What is there to praise in his treatment of Nicodemus, whom he merely puzzles and mocks? In iii. 22-36 the Baptist talks precisely as the Jesus, showing that it is the Evangelist that is speaking all the time. At the well, what single word or deed of kindness? None at all. It is only unearthly authority walking on earth. Nor is there aught in the following verses. The second sign, the healing of the nobleman's son, is a deed of might solely, with no traces of love or human affection. The same must be said of the case of the cripple. It is only a defiant exercise of divine power on the Sabbath, no glimmering of human emotion. Nor is there any more in the long speech that follows.

Coming now to the sixth chapter, we find the five thousand fed. Is it an act of human sympathy, kindness, self-sacrifice? By no means, but only of divine power, symbolizing the all-sustaining exhaustless might of the Truth, the doctrine of Jesus. Likewise the miracle of the ship brought instantly ashore, by might of the God. The long address that follows is doubtless profound theosophy, but it merely mystifies the hearers.

Similarly chapter vii shows no really human trait, least of all any amiable trait, it only perplexes the auditors with doctrines deep below the utmost plummet of their understanding. Chapter viii contains the famous pericope concerning the woman (vii. 53-viii. 11), which surely displays no human quality but teaches the forgiveness of God for the wicked and adulterous (i. e., idolatrous) generation, which the Jesus-cult had come to save. As a historic incident it is

not defensible, and by the early church was not felt to be defensible; the rest of the chapter is discussion between Jesus and the Jews, in which there may be much profound theologizing, which none could expect the Pharisees to understand, but certainly nothing to move any one to love.

The ninth chapter gives the symbolic miracle of healing the blind-born; there is in it never a movement of human feeling, only the enlightening power of the "monotheistic Jesus-cult" is set forth and enforced. This was well worth doing well, but it teaches nothing whatever about the gentle humanity of Jesus. Chapter x sets forth that Jesus is the Door and the Shepherd. It is all doctrine and nothing but doctrine. Even the notion of laying down and taking up life is pure dogma, set forth with utmost frigidity without any tinge of human emotion. In fact it seems clear that x. 11-18 is an appendix, which Wellhausen has perceived, as also the Latinism in "placing" and "again taking" life (*theinai* and *palin labein*). Plainly these are words of a musing dogmatist and wholly impossible on the lips of any sane being addressing the Jews. Least of all do they present the Jesus in a lovable light, since they merely bewilder his audience.

The resurrection of Lazarus is beyond question a symbolism, whether Lazarus be this or that, the Gentile world, or humanity in general, dead in trespasses and in sins. Clearly no care for Lazarus controls the conduct of Jesus, who pays no heed to the message of the sisters, but waits quietly till Lazarus dies, solely in order that the Divine power may be exhibited in his resurrection. True, it is said that Jesus loved Lazarus and Mary and Martha, precisely as it is said that "God so loved the world." Divine love does indeed seem to wait upon the slow process of the suns, but not human love. A man that would wait till the last moment before helping his friend, in order to show forth his own power more brilliantly, would arouse only abhorrence. Some traces however of human passion seem to present themselves in verses 33-35, where it is declared he "groaned in spirit and was troubled" and "Jesus wept." But "groaned" is not the right word. Far better is Weizsacker's *Ergrimmte er im Geist und schüttelte sich*. It is wrath, not grief, that is meant by *embrimāsthai* ("to snort at," as in the "snorting of Jehovah"); even Godet concedes as much (*L'évangile de Saint Jean*, III, 231). This choler is not so easy to understand, but it is a fact in this representation. Neither then can we interpret

the weeping as the expression of tender sympathy. In fact there was little room for grief—at what? Lazarus was immediately to be resuscitated for the greater glory of God. The feelings of Jesus seem to have been directed not at all toward Lazarus, Mary or Martha, but solely toward the Jews and himself in relation to the Jews and to God.

In chapter xii Jesus is purely dogmatic and self-glorifying without any tincture of altruistic feeling. In chapter xiii he washes the disciples' feet, but in no spirit of humility or devotion, solely as a symbolism, apparently to displace the symbolism of the Last Supper. The new commandment (Love one another) is new only in putting *agapate* for *phileite*; the notion and obligations of mutual love were perfectly familiar both to Jewish and to Greek ethics. To say that among Christians the word was filled with richer meaning is indeed to say, but not to prove. But even if such were the case it would mean only that in the early religious community the flame of sympathy was kindled to a livelier glow—which would require no explanation. It would call for courage to contend that the Johannine Jesus must have been a lovely character because he exhorted his disciples to love one another.

Chapters xiv, xv, xvi are theology or Christology pure and simple, with still no play of human or indeed any other feeling. They set forth the doctrine of the Jesus and nothing else. The love frequently mentioned is love divine, toward God or from God, such as a saint might feel or a sinner might receive, but it is not a love that tells anything about a Man Jesus. The same must be said of the great high-priestly prayer, chapter xvii. It is nothing whatever but Christology, dogmas concerning the Jesus-Logos and the Father and the church, taught with the highest authority because placed on the lips of Jesus under circumstances of the deepest solemnity, but it gives no hint as to any human character of the Jesus. The love mentioned is a purely theological love, as the sin denounced (xvi. 9) is purely theological, "they believe not on me"; and the judgment also (the overthrow of idolatry), "for the prince of this world hath been judged"; yea, the righteousness also, "because I go to the Father and ye behold me no more."

Chapter xviii presents the Jesus in godlike majesty, imperishable before Annas and Caiaphas and Pilate, but still without human sentiment. Chapter xix describes the persecution and death of a God, but still with only the most insignificant touch of human-

ity. The sufferer does not really suffer, he merely plays a part in a sublime symbolic tragedy. It is to fulfil the Scripture that he says "I thirst"; then he proclaims, "It is finished," bows his head and *delivers up the spirit*. It is all quite voluntary; the nails have not slain him, no one has taken his life, he has himself given it up. The words to the mother and to the beloved disciple, "Woman. behold thy Son!" and "Behold thy mother!" breathe only the faintest breath of human sentiment. They are plainly allegorical and seem to refer to the complete passage of the "new doctrine" from the Jew over to the Gentile.

Neither after the resurrection is the human character of Jesus either more or less lovely. In all the apparitions,—to Magdalena, to the disciples, to Thomas, to the seven,—the same unearthly aloofness is present, precisely as before the crucifixion. Even in the conversation with Peter there is never a heart-beat. We are indeed told repeatedly that he loved one disciple, but there the story ends. That this disciple leaned on Jesus's breast is doubtless said symbolically, but even if said literally it would merely indicate position at the table, or at most only the fondness of the disciple, it would tell naught about the human character of Jesus.

In the foregoing no question is raised as to the unity of the Johannine text; the proof that the text has suffered extensive revision would not affect our general conclusion, but it would forcibly illustrate the all-important truth that all of our New Testament Scriptures, with very few and insignificant exceptions (if any), are gradual growths, the stratified deposits of centuries of intense religious activity.

It seems then that the Fourth Evangelist has not introduced into his portrait a single really attractive feature. As a human being his hero has not one element of loveliness; nay more, in spite of eighteen centuries of prejudice the fair-minded reader must admit in his own heart that the portrait is unlovely, that it is ghostly and uncanny, stern, harsh,<sup>4</sup> and unfeeling. Nevertheless the Evangelist has evidently striven hard to make the picture both human and lovely. "Behold the Man" is a clear cry from his own soul. He has imagined details without number whose only function could be to make the painting vivid and realistic; he has wrought countless

<sup>4</sup> Even Weidel cannot deny but has to admit this; see his *Persönlichkeit Jesu*, passim, especially p. 53 f., where he decides that not Love but Wrath, not the Mild but the Harsh, was fundamental with Jesus.

variations on the theme of love, he has studied earnestly to introduce tender and intimate relations. He has humanized to the utmost, he has sentimentalized to a degree. And yet—his failure could scarcely be more complete. From first to last, despite all these efforts, the Jesus remains a God, the same yesterday, to-day and forever, with hardly the slightest change in visage, in tone, in bearing, through twenty-one chapters, without a single warm pulse of blood, as "cold as the waveless breast of some stone Dian at thirteen."

This result is remarkable. It shows how completely possessed was the mind of the Evangelist with the notion of Jesus as Divine. With extremest care he would paint a human form and face; but nay, the humanity is only the most transparent veil, through which gleams immovably and almost mockingly the visage of Deity. The other Gospel-writers have made no such studied attempt to depict a God-man; they have indeed historized and humanized, but in a far franker and more incautious manner, with far less care for detail, with broad strokes rather than delicate pencilings. Their failure to produce a really human figure is just as complete as their successor's, though far less conspicuous and impressive because they have essayed so much less; the disparity between the endeavor and the accomplishment is not so patent and painful. It is needless to go through the Synoptics chapter by chapter. Whoever does so will find that he seeks in vain for a genuinely human trait or deed, the few apparent exceptions have been sufficiently treated in *Ecce Deus*, such as the incidents of the little children, of the Rich One, and of Mary and Martha. The writers are not concerned, as was John, to make us "behold the man," they draw their sketch much more naively, according to this or that divine model, whether the Suffering Servant of Jehovah, the Alexandrine Wisdom, or the Danielic-Enochian Son-of-Man. The point is that it is plainly a Divine being that moves before us, and not a man of flesh and blood.<sup>5</sup>

How enormously different is the representation here, even in the oldest strata of the Synoptics, from any depiction of any man, even of the most wonderful, is seen clearly in a single circumstance.

<sup>5</sup> It seems almost impossible to state the case with due emphasis. That a man Jesus, even though far below the conceits of any historicist, should not have been thoroughly lovable and intensely human, is quite incredible; and that tradition should not have preserved one single trace of the lovable while deifying him as the God of Love, seems improbable to the verge of the impossible; it remains then that he was a humanized God, but never a man at all.

Apollonius is represented, and perhaps correctly, as absolutely chaste and virginal, yet as recognizing fully and wisely the rights of Aphrodite, and no one would feel the least shock, had he been represented as falling in love or as married. But in the case of Jesus any such representation would be blood-curdling, it would be felt as blasphemously impossible. To me at least the insinuations of Renan (to say naught of Binet-Sanglé), when I first read his "Life of Jesus" sympathetically many years ago, were immeasurably loathsome, as well as ridiculous, though I never dreamed then that Jesus was aught but the man of Galilee. The fact is that we all feel the jar and dissonance even when told that Jesus was an hungred or that he slept. We see at once that these traits have been introduced solely to vivify the story in the context, yet we also feel that it is a decided artistic defect of the story that it should require any such detail to make it vivid; but surely no one has any such feeling about Apollonius or any other human being.

In general, however, in their historizing the Evangelists have avoided such pitfalls most admirably; they tell us mainly that Jesus said or went or did, with little further specification; but these vague terms were necessary in the nature of the case, they were familiar enough as predicates of Jehovah—who could evade them in any anthropomorphization or historization? Add hereto the much rarer use of certain cognates and synonyms, such as "entered," "departed," "walked," "said," "heard," "knew," "perceived," "talked," and the tale is well-nigh told. All of these and even "sat" are used of Jehovah, and not improperly but of necessity. A few other still rarer uses have been sufficiently discussed in *Ecce Deus*.

Eating would seem to be more unbecoming to the Jesus than Byron thought it was to woman, though the ancients in general deemed not so, but conceived of the gods as feasting daily on Olympus though only on heavenly food, "For no bread do they eat, nor drink of the wine in its sparkle," and making a twelve-days sojourn in feast with the blameless Aethiopes; nor was the Hebrew idea much different. It would not be strange, then, if the Evangelists should represent the Jesus as eating, yet only Luke speaks of him so and remarkably only after the resurrection (xxiv. 43)—an apparent thrust at Docetism. True, a Pharisee desires that Jesus eat with him (Luke vii. 36) and Jesus declares "with desire I have desired to eat this Passover with you" (xxii. 15), but it does not appear that he actually ate, for he adds, "I eat it not until it be fulfilled in



the kingdom of God" (Luke xxii. 16). Also directions are given to prepare "where we may eat the Passover," "where I may eat the Passover" (Mark xiv. 14, Luke xxii. 11, *not* "where I shall eat"),—"where thou mayest eat" (Mark xiv. 12), "for thee to eat" (Matt. xxvi. 17), and it is said that the disciples ate, but not the Jesus.

In John iv. 32 the idea of his eating seems to be distinctly rejected, while in the synoptics it appears to be avoided. On the whole the representation of Jesus as human is carried in the Gospel only so far as the general needs of the symbolism require, but hardly further. The vivid depiction of a striking personality is nowhere to be found; on the contrary, the notoriously unhistorical elements abound, the representation is thoroughly conventionalized and drawn after purely unhistorical and at least quasi-divine models, and the characterizations are so openly discrepant or downright contradictory as to render the task of ascertaining even a few principal features entirely hopeless. This general state of case is practically conceded by such competent critics as Bacon (*Christianity Old and New,—Characterization of Jesus*) and Weidel (*Persönlichkeit Jesu*), to name only the most recent (1914). But such as Bousset and Conybeare may say, "Is not the character of Apollonius equally uncertain?" The appeal to Apollonius grows daily louder and more insistent, and since historicism would change the venue to Tyana, to Tyana let it go. Nothing could please the present writer any better, for it is not hard to show that by this much paraded parallel to Jesus the historicity is finally and hopelessly condemned. However the question is a large one and deserves a full and separate treatment shortly to appear, much more minute than already given. Here be it noted only that Norden in *Agnostos Theos* holds firmly that Acts is dependent upon original memoirs of Apollonius.

In conclusion, what has Professor Bousset to claim for the simulacrum of an historical Jesus, which he has poured forth such wealth of learning to defend? The passage is eloquent and worth quoting in full. Not only does it show Bousset at his best, but it also shows the desperate plight of historicism even when such a shield of Apollo is spread above it in defense. It begins Homerically enough: "So has the church (*Gemeinde*) woven its poetry into the figure of its master's life. But it has done more than that and withal has preserved a good piece of the genuine and original life. [We prick up our ears in wonder, to hear the proof, but in vain,—no

attempt is made.] She has conserved the beauty and wisdom of the parables in their crystal form—a Greek church could not have done that. She has bowed herself beneath the strong heroism of his moral demands rooted in a faith-in-God quite as bold, and from them has broken away scarcely aught at all; the figure of the great warrior for truth, simplicity, and rectitude in religion she has kept faithfully against all false virtuosity: she has dared to reproduce his annihilatory judgment upon the piety of the ruling and directing classes, and without abatement; she has sunned herself in the glory of his trust in God, in his kingly free and careless attitude toward the things of this world and this life; she has steeled herself in his hard and heroic demand to fear God and not men; with trembling and quivering soul she has transmitted his doctrine of God's judgment and of the eternal responsibility of the human soul; with hallelujahs of joy she has proclaimed his glad message of the kingdom of God and the duty of the community in righteousness and love, in compassion and in reconciliation.

"But of late they tell us that this whole proclamation contains in fact nothing new and peculiar, nothing that was not already living long before, here and there, in the world around. As if in religion it was a question of the new and unheard-of! As if it were not a question of the primeval, the ever-present already, i. e., of the eternal and the universal, and above all else of the distinctness and the clearness, the compactness and completeness, with which the Aboriginal-Eternal is lit up anew and comes to consciousness, as well as of the impelling power and passion with which it seizes on the heart.

"But in this connection above all else we must heed how first in this peculiar combination of the historical figure of Jesus and of the proclamation of the church (*Gemeinde*), that Jesus-figure was created which for the history of Christian religious feeling (*Frömmigkeit*) has been so enormously effective. Only because the church placed behind the Gospel of Jesus the form of the heavenly Son-of-Man, of the ruler and judge of worlds, and allowed this latter's glory half-revealed, half-concealed, to glimmer transpicuous through his history, only because she sketched the figure of the wandering preacher on the golden background of the miraculous, overweaving his life with the splendor of prophecy fulfilled, only because she allocated him thus in a vast divine salvation-history and made him appear as its crown and consummation, did she make

this picture of Jesus of Nazareth effective. For the pure historical can never effect aught of itself, but only the vividly present Symbol in which the religious conviction proper represents itself transfigured. And an era that by no means lived on the simply moral and simply religious alone, but on every kind of more or less fantastic eschatologic expectations, on faith in miracle and prophecy, in a near-come, unheard-of peculiar inroad of deity into the course of nature and history, in all kinds of healings and messiahs, in devils and demons and the speedy triumph of God and his people over these hostile powers—such an era needed exactly this figure of Jesus, as the first disciples of Jesus created it and caught the eternal therein in the rich-hued vesture of the garment of time. This spectacle of the creation of a Jesus-figure sketched by faith will repeat itself for us yet once again, from the standpoint of a faith both purer and higher, more general and universally valid, yea, in strictness it repeats itself infinitely often in the whole course of human history" (pp. 90-92).

In reading this forceful and eloquent "conclusion," so bold and withal in the main so true in its utterance, one cannot but recall the exquisite pathos of Euripides on the death of Polyxena:

"But she, though dying, none the less  
Great forethought took, in seemly wise to fall."<sup>6</sup>

In plain English, it would appear that the human life of Jesus as the source and center of early Christian life and thought is hereby formally and forever abandoned. It was not the historic Jesus at all, but the unhistoric, the ideal, "the Symbol," the divine Son-of-Man that was "effective," that alone worked the wonders of the first propaganda. Herein then we see fulfilled the tendency of criticism to reduce the life and personality of Jesus "to an utterly ineffectual source of Christian influence" (Ransom). At what a tremendous sacrifice does historicism seek to save its historical Jesus—at the complete sacrifice of everything worth saving! *Et propter vitam vivendi perdere causas*. Who can care a whit for an historical character of whose history and character we can recover naught with any confidence, who left no lasting imprint on the mind of any one, whose greatest apostle never knew him and derived in no measure from him (see *Kyrios Christos*, p. 143), whose followers departed instantly from his precepts and example, preaching a world-

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ἡ δὲ καὶ θνήσκουσ' ὅμως  
πολλὴν πρόνοιαν εἶχεν εὐσχήμως πεσεῖν.

gospel of which he had never dreamed, whose memory was forthwith forgotten or transfigured into its own utter unlikeness? It is clear that this "historic" figure, as utterly ineffective, is utterly useless in the interpretation of early Christian history; it is only the divine figure that works. What reason then for assuming such human figure? None at all. Hitherto it has been held that the human Jesus was necessary to explain proto-Christianity; and hence the reality of the historical character was inferred. But now it appears that this same character is quite inoperative, that only the divine Jesus was "effective." How then are we to deduce the historic actuality of Jesus, since one premise in our syllogism is gone?

But the case is really far worse. Not only is "the historic Jesus" seen to be useless as a fifth wheel, but the notion is a positive and a heavy clog. If there was any such historic character, then the formation of the supramundane Jesus-figure becomes doubly, trebly hard to understand; the consolidation, the precipitation of all the elements present in the historic milieu into the Idea of the God-Jesus seems not impossible to comprehend; but their shaping into this *divine form* when deposited on an immensely different *human form*, this seems well-nigh inconceivable. Over against any tendency of these elements to crystalize into the New Testament image of the Logos or the Son-of-Man enthroned in heaven as world-ruler, would lie the obstinate facts of memory, of ordinary earthly life, of humiliating crucifixion. Bousset makes no attempt to show how such a transformation did or could take place. Even if it were possible for such a metapsychosis to occur in the minds of a few, it seems many times impossible for it to have taken place in the minds of all. Yet it must have done so, for we find the same doctrine of the Divine Jesus on the lips of all the early missionaries, unaffected by a thousand variations in detail. Add to this that the transformation took place practically instantly; for before Paul's conversion, before the end of five years at most,—nay, the recently discovered Gallio inscription (of Deissmann) brings Paul to Corinth early in A. D. 50 instead of 53 as hitherto thought, so we must now say at most *two years*,—after the crucifixion we find the Gentile mission "flooding" the world with the doctrine of the heavenly Jesus—and not only the inutility but still more the impossibility (without a continuous psychological miracle) of the doctrine of the transformation of the Jesus-figure becomes manifest.

What Bousset says the *Gemeinde* has preserved of the original

Jesus-figure is too vague for argument. Not one of these elements can be traced back with any confidence to a personal Jesus; they are altogether as easy, yea, they are much easier to understand as the products of the general religious consciousness dominant in proto-Christian circles. Of course this consciousness came to expression only in individuals, many of whom were doubtless notable personalities, *none of whom was the God-Jesus* any more than Isaiah was Jehovah. Bousset himself seems to admit that there was naught new and peculiar therein, but holds that it was a question of fire, energy, vividness, passion and power. All this appears most true, but where, pray, are we to seek for all these elements of efficiency? In "the historic Jesus," or in the preachers of "the doctrine of the Jesus"? Common sense cannot hesitate. Assuredly it is the contagious zeal of the early missionary movement, the boundless enthusiasm of a prodigious idea, of militant monotheism, that accounts for all that Bousset rightly stresses. To this exalted religious consciousness, this transport of a sublime faith in one God among many idols, this amazing conception of a Kingdom of the Heavens, of a converted world, this inner voice, "Woe is me if I preach not the Gospel," this vision of the angel flying in mid-heaven and crying aloud, "Fear God and give him glory"—to this religious consciousness, the birth of brooding centuries, must we ascribe the high and distinctive qualities that Bousset so clearly discerns and so brilliantly sets forth.

In particular it is the elevated style of the New Testament, the *élan vital* of its religious rhetoric, that enthralled the reader and makes him exclaim, "never man spake as this man." But this supreme quality has certainly naught to do with any human personality of Jesus. It presents itself under a hundred Protean forms in the New Testament, in the Synoptics, in the Johannines, in the Paulines, in Hebrews, in the Epistles, in the Apocalypse, every instant changing and everywhere the same spirit, whether in Peter or in Paul, in John the Baptist or in John of Patmos. It is the spirit of the "new teaching," the conscious burden of the message of Salvation, the Glad Tidings of great joy, of the Redemption of Humanity from the ancient tyranny of the demons of idolatry into the Kingdom, into the freedom of the sons of God. This was undoubtedly the greatest propaganda ever proclaimed to the race of man, and it would be strange if it had not heated the furnace of religious feel-

ing to sevenfold ardor and expressed itself in a sacral literary style of peculiar energy and unction.

The proto-Christians themselves took exactly the right view of the matter, saying, "It is not ye that speak, but the spirit of your Father that speaks through you," and to the Spirit they ascribed all the mighty deeds of the Apostolic age. Such was really the case; it was the Holy Spirit, the communal religious consciousness shared by all alike but in varying measures and forms of manifestation, that inspired the "mission-sermon" of the monotheistic crusade and wrought the amazing wonder of converting an empire. If in later centuries the church has achieved no triumph commensurate with the first, the reason is simple enough; it has not been animated by any Idea comparable in sublimity or in truth with the proto-Christian Idea, the monotheization of the pagan world. No greater error than to force individual religion, the desire for personal salvation, to the front in this far-flung battle-line of missionary religion. Of course the Apostles wanted to be saved, but they felt sure they were already saved, it was the salvation of the lost that concerned them; they set up high standards of moral and religious conduct, to which they strenuously exhorted their converts, but the supreme matter was to worship God and Him alone, all the rest was secondary and sequent, even as perfectly expressed in Matt. vi. 33: "Seek first the kingdom of God and his righteousness, and all these things shall be added unto you." A deep sense of personal guilt, with longing for personal salvation, might possibly make a St. Antony or a Blaise Pascal, but never an Apollos, never a Philip, never a Barnabas, and never a Paul.

It appears then that Bousset has rightly recognized the divine Jesus, i. e., "the monotheistic cult of the Jesus" (Deissmann), as the energetic element of proto-Christian life, *but he has failed entirely to connect it with a human earthly Jesus*, in fact, he has nearly shown the impossibility of any such connection. The Lord Christ Jesus, Son-of-Man in Heaven, has naught to do with "the historic Jesus," the fictive Carpenter of Nazareth. Above and beyond all question the former is independent of any human earthly life of Jesus, indeed it antedates any such life, and alone is present and effective in the early church; the latter is at best both problematic and functionless—it explains nothing but renders all else unexplainable. Why then retain such an imaginary unconnected with any

other symbol in the equation whose solution it embarrasses, yea, makes impossible?

It is upon this fatally weak spot, this yea-nay in Bousset's theory, that a critic equally acute and friendly (Max Brückner, in *Theol. Rundschau*, May, 1914), in a highly appreciative and deeply sympathetic review has laid firmly the finger of kindness. Speaking of Bousset's correct doctrine that "this belief in the exaltation of Jesus as Son-of-Man was not the consequence but much rather the presupposition of the appearances of Jesus," and of Bousset's attempted psychological explanation—through "the incomparably powerful and indestructible impression, which the personality of Jesus had left in the soul of the disciples and which was mightier than public shame, death, anguish, and overthrow,"—that the disciples "had no other choice" but to transfer the *already made* concept of the Son-of-Man to the Crucified, Brückner declares both wisely and frankly: "I must confess that these psychologic discussions of Bousset's do not satisfy me" (p. 173). After exposing the futility of Bousset's assertions he adds emphatically: "In no case can the screaming dissonance of the crucifixion of Jesus and his exaltation as Son-of-Man in the faith of the *Urgemeinde* be resolved solely by psychologic considerations." Yet *no other considerations has the historicist to urge*.

At this point, then, we must pause. The work of Bousset is no less of prime importance elsewhere and particularly in the treatment of Paul; especially noteworthy is his just judgment (p. 143): "It may be definitely maintained that what we call the moral religious personal character of Jesus had no influence and no significance whatever for the religious feeling of Paul." "The Jesus that Paul knows is the preexistent heavenly Christ," who alone is "the subject to all these predicates," and "not the historic Jesus" (p. 144). All of which is most just and true and shows to what position Bousset has advanced, a tent wherein he takes his noon-day rest, where it is pleasant to stop but impossible to stay. It would be interesting to determine yet more exactly the angle through which this great work marks the rotation of the critical firmament, did not space fail for any such measurement; but no one can lay it down after careful perusal and not exclaim, with or without Galilei, *And yet it moves*.

At the close of the leading article in the *Theologische Rundschau* of October, 1911, our author tempered his hostile criticism of the second edition of *Der vorchristliche Jesus* with these words:



"But these deviations of Smith's researches possess and preserve in their very forcefulness and originality a power of stimulation and of invigoration. They compel us to enter more carefully into difficulties and problems which investigation has hitherto passed by with indifference and without regard, and they help perhaps to bring many a new result of investigation forward to the light." This, our author's present volume, may be taken as a fitting commentary upon his earlier text.

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### VEDANTISM, ITS INTRINSIC WORTH AND ITS VAGARIES.

Vedantism, the philosophy of ancient India, which sets forth the end or purpose of the Veda, the religious books of the old Brahman religion, is one of the most interesting and important phases in the history of philosophy. It is a remarkable attempt of ancient Hindu thinkers to reach a finality of thought by an intuitive comprehension of existence. No one who has become accustomed to scientific ways of thinking can approve this system of philosophizing, and least of all can he see a finality in it. To him the solutions offered are merely empty phrases which do not solve the great problems of existence that science of to-day undertakes to fathom by methodical investigation, by logic and rational thought, by experiment and by the systematization of all knowledge into one unified and consistent whole.

A study of the Vedanta is highly to be recommended, for we should understand it and be able to feel its grandeur, its beauty, and the truth it contains. It is necessary to grasp its truth in order to see that its truth is relative; an understanding of the relative character of its truth reveals its insufficiency; and, seeing its insufficiency, one transcends it, satisfied that there is no royal road to philosophic truth, or to a mystic intuitive wisdom such as that promised by Vedantism. A study of such systems as the Vedanta leaves one with a wholesome respect for and satisfaction with the results of scientific method which, though generally slow and tedious, is sound and sure.

The beauty of Vedantism has been felt by our American poet-

philosopher Ralph Waldo Emerson, who sums its truth up in these lines:

"If the red slayer think he slays,  
Or if the slain think he is slain,  
They know not well the subtle ways  
I keep, and pass, and turn again.

"Far or forgot to me is near;  
Shadow and sunlight are the same;  
The vanished gods to me appear;  
And one to me are shame and fame.

"They reckon ill who leave me out;  
When me they fly, I am the wings;  
I am the doubter and the doubt,  
And I the hymn the Brahmin sings.

"The strong gods pine for my abode,  
And pine in vain the sacred Seven;  
But thou, meek lover of the good!  
Find me, and turn thy back on heaven."

All is life, all is aspiration, all is pressing onward to victory; all is God, and we must understand that God is borne on the creative billow of the All, as well as we. Every finite thing passes—as a phase of the Infinity—but the Infinite endures forever. The conception of Vedantism, as presented in Emerson's beautiful lines, is a kind of pantheism, in which God is the All. God reveals himself in hammer and anvil, in action and reaction, in energy of all kinds, in good and evil, in the aspiration of the worm that crawls in the dust, and of the heaven-inspired prophet who longs for the beyond that he beholds in his vision.

The present number of *The Monist* contains two articles which reflect the spirit of Vedantic philosophy; one is "The Conception of Brahma" by Mr. Leo C. Robertson; the other, "The Vedantic Approach to Reality" by S. Radhakrishnan. Both are splendidly written, both breathe the enthusiasm which as a rule thrills the Vedantic thinker; both are more than mere historical reproductions of the old Vedantic theories, for they offer presentations of Vedantic thought in a modernized form and brought up to date by supplying it with the support that comes from Western thought, thus making its theories more acceptable to the generation of to-day.

In reading these articles one learns, if he has not before become acquainted with Indian thought, to appreciate the Vedanta, and one

may even be led to study Vedantism and its ancient classical documents, the Upanishads. In this the reader will be well repaid, and in his task he could find no better hierophant to introduce him into all the many details of this system of thought than Paul Deussen who has translated the Upanishads into German, and is the author of the most exhaustive treatise on the Vedanta.<sup>1</sup> Study Vedantism and you will be glad to become acquainted with this remarkable phase of human thought, but be not disappointed if after all your trouble you find out that all truth is not contained therein.

In his article on the Brahma conception Mr. Robertson sets forth the main doctrines of Vedantism. I will refer here to the tersest gems of thought, which recapitulate in brief the main "truths" of Vedantism.

If an inquirer is met by any object which he does not understand, be it reality as a whole or one of its finite parts, he solves the problem by the dictum *Tat tvam asi*, "That art Thou"; and the fundamental idea of all philosophy is *Brahma-atman-aikyam*, which, freely translated, means: "existence is Brahma, i. e., God; thou art the self; and both, the Brahma and thou the self are one." Thus the riddle is solved, and one can say, *Aham Brahma asmi*, i. e., "I am Brahma." This is the truth, and this exhausts all wisdom; or in other words, "There is but one and that art Thou."

This is the central truth of Vedantism, and Mr. Robertson sums up the whole doctrine as follows:

"The whole of Eastern mysticism, or for that matter of any mysticism, may be summed up in the compound word *brahma-atma-aikyam*, i. e., the unity of the Brahma and the self. The significance of this is that there is only One real being, a Being that is absolutely One, and as the Vedantist goes on to add in his famous formula, *Tat tvam asi*, 'That art Thou.' The self or soul in each of us, this is the Absolute. But there is not a plurality of selves. There is only One, and That art Thou. Thus boldly the Hindu philosopher declares *Aham Brahma asmi*,—'I am Brahma.' Thus does he identify the individual self with the eternal principle of all Being. Or, if one prefers to use the word God, there is naught but God and that art thou. The individual self is not a part of the Absolute nor an emanation from him, but it is absolutely identical with him."

The philosopher tries to understand the Absolute, but his

<sup>1</sup> *Das System des Vedanta*. The work has been translated into English by the Vedantist scholar Mr. Charles Johnston (Open Court Publishing Co.)

labors are in vain. The Vedantist's answer will be again and again, *neti, neti*, "It is not so, it is not so."

Thinkers and philosophers attempt to unify knowledge. They do it in various ways, and build up different systems of monism, materialistic, dynamistic, spiritualistic, pantheistic, and other varieties. Vedantic monism is thus set forth: The world is one because its oneness is my oneness, and I myself am Brahma, the world principle. I am the All. Brahma can be characterized only negatively. *Neti*, "it is not thus." If we want to know more we are told that the Absolute exhausts all. It is the end of all our study, and our knowledge of it must satisfy us. The ultimate result is, "I am I."

We thus sink into an abyss of definitions which have no meaning, but we must not mind, for the All is Brahma, and I am the self; but the self is Brahma, and Brahma is the Absolute. The circle widens not only into the Infinite, but even into the Naught, for we must know that an absolute is really equivalent to Nothing.

These are the doctrines of the Vedanta in a nutshell, and these sentences often intoxicate the philosophically inclined. We bow down in reverence, we rise in glory, sanctified by the thought of our deified nature. We have fathomed the deepest truths and expanded into the all-embracing divinity of the vast Infinite, the Nothing.

Mysticism has its great rewards; it has beauties of its own; it builds up for the mind a heaven of its own. It pleases our mind; it satisfies our intellectual needs; it fills our soul with enthusiasm and with a religious intoxication. Verily, it is grand and magnificent; it fills man with the divine spirit and reveals to him his own godhood. He is no longer a finite creature; he is the Infinite, the Absolute,—God himself. Tell the scientist, the philosopher, whoever is still searching for the truth, that he need no longer vex his soul by searching for it in painstaking investigations, for the truth has been found. Here is the truth in three words, *Brahma-atman-aikyam*.

Will the scientist, or a scientifically trained man, accept this verdict? No, he will not. The scientist's answer is rarely complimentary when the Vedantic gospel is preached to him. I will boldly repeat what different scientists have said and what others will say when they hear such truths as these proclaimed: "Brahma is the atman, and the atman is myself, and I am Brahma." The scientist will not shout hallelujah, or hosanna, but will ask, "What

does this mean?" And after troubling for a while he will probably come to the conclusion: "All these sentences are fine phrases, but they are unmeaning and empty. They do not help, they explain nothing; and if I try to decipher their meaning they prove to be simple nonsense. Tell me what they can mean, and I will try again." To this the Vedantist will say: "How narrow are these modern scientists; their minds are closed to the deepest truths." That is and will remain the end of the controversy, and we must recognize that there is an unfathomable abyss between the two parties.

We might close here, but we must not withhold from our readers the fact that the Vedantists are not only misunderstood to-day, but they also met with severe opposition in ancient India, and their great adversary was Gautama whom still to-day hundreds of millions of human beings worship as the Buddha, the Enlightened One.

In Buddha's time Brahmanism was the religion of India, and Brahmanism preached a belief in Brahma, the existence of the self or the atman, and salvation from evil by prayer, sacrifice and other religious ceremonies. Buddha opposed the main doctrines of Brahmanism, and declared that prayers, sacrifices and ceremonies were of no avail and that man can find salvation only by purifying his heart, by avoiding evil, and by doing good wherever he could. His doctrine is summed up in this quatrain, translated from the Dhammapada:

"Cease evil and do good,  
And let thy heart be pure.  
This is the truth of Buddhahood,  
Which will for aye endure."

But Buddha opposed also another important doctrine of Brahmanism. He rejected the theory of an atman and preached the doctrine of the anatman, the theory that there is no self, or rather that what we call self or atman is a combination of several qualities but not an existence in itself.

It is a coincidence that in his doctrine of the anatman Buddha anticipated modern psychology, with its scientific conception of the soul, and if I recommend the study of Vedantism I will not omit to advise my readers not to overlook Buddhism. They will have to choose between the two; *tertium non datur*.

Mr. S. Radhakrishnan presents us right at the outset with about half a dozen different definitions of philosophy. We do not

know which of them he accepts as its central and most important feature, but it does not matter very much which of them he would select; for none of them seems to him sufficient; all seem needed to bring out the complete significance of philosophy.

Philosophy is, to Mr. Radhakrishnan, "the attempt to think out the presuppositions of experience, to grasp, by means of reason, life or reality as a whole." I suppose the Vedantist, with his modern education, here has in mind Kant's transcendentalism, which systematizes the presuppositions of experience, such as transcendental logic, transcendental esthetics, etc.

The presupposition of experience is an important domain of science. It comprises what Kant calls *a priori* thought, and consists of the purely formal sciences, logic, arithmetic, geometry, and the purely natural science (i. e., the doctrine of causation). But this group does not constitute philosophy. At best it is but an introduction to philosophy. Philosophy is more. Philosophy is the conception of the world as a whole. And this broader conception of philosophy would presuppose a systematization of the results of all the sciences into what Comte calls a hierarchy of the sciences. A systematic description of the whole is different from Kantian transcendentalism, and it might be a special task of the Vedantist to try to reconcile the two. A reconciliation is not impossible, but certainly we should have to overcome some difficulties.

The Vedantist however is confronted with additional problems. According to a third definition philosophy "has to find out an all-comprehensive and universal concept which itself requires no explanation while it explains everything else." Many philosophers have tried to find a universal concept, but all of them have failed. Materialists have found this universal concept in matter, but they have not succeeded in deriving everything else from matter. How, for instance, can we derive from matter the truth of geometrical theories? Logic is not explicable from matter, nor can its principles be derived from material phenomena. Further, life cannot be explained from purely mechanical principles, and still less feeling and consciousness. The truth is that in this world there are several distinct universal concepts. Life cannot be derived from dead matter, nor inversely can the meaning of matter be derived from the notion of life, motion, or energy. Even the two ideas, matter and energy, are absolutely distinct and different. Energy is change of place, and all we can do is to declare that it is closely connected

with matter. Some say that it is a property of matter; but it is not matter, it is different from matter. It seems therefore that a philosophy that would systematize our knowledge of the world into a hierarchy of concepts, with one on top of all, is impossible; it seems to be an illusion, and moreover a useless aim of an ill-directed philosophical thought.

Further I would say that the definition of philosophy as "a theory of reality" is in so far useless as the meaning is hazy. We must first understand what the Vedantist thinks by "reality," which he defines as "something existing by itself." But this conception is too complicated to be helpful as an explanation of matter, life and spirit.

Mr. Radhakrishnan's presentation of the problems of life takes the form of a gradual advance from the universal to the specific. We meet matter first and ask what the objective reality which resists our own existence may be, and we call it *Anham*, "food" or "matter." It is objectivity or reality. So matter and the principles of its motion, which scientifically can be explained on mechanical principles, is the first solution which is offered. As in modern materialism, this materialistic principle is accepted as the all-explaining solution; but when we investigate the nature of life we find that life cannot be explained from purely mechanical principles, and so a new principle is introduced, namely *Prana*, or "life."

But we are baffled again, for even life is not sufficient; it does not explain mind; thus the Vedantist is confronted by mind or spirit. The acceptance of *Prana* or life corresponds to modern vitalism, and beyond *Prana* we are confronted with mind or *Manas*, which makes possible a spiritual reality or intellectual principle needed for the comprehension of the world.

Here the Vedantist identifies mind with consciousness, although they are not identical; for while mind is the principle by which sense experience or ideas can be systematized, consciousness belongs to the realm of feeling. Consciousness is a condensation of sense activity; it is systematized feeling, and really belongs to a different category from mind. Though we grant that consciousness can develop only in minds, it would not be right to identify mind and consciousness.

A scientific thinker accustomed to exact investigation will be merely puzzled by the study of Vedantic thought. A professor of physics, incapable of understanding the thought of Vedantic philos-



ophy, once answered me with a quotation from Goethe's Faust, by saying:

"Es glaubt der Mensch, wenn er nur Worte hört,  
Es müsse sich dabei auch etwas denken lassen."

[Man thinks that if he heareth words alone,  
That all the words ought to contain some thoughts.]

And when I further explained the teachings of Vedantism by quotations from the Upanishads, and defined the atman as the Brahman, his face assumed a blank expression, and he said, quoting again from Faust, his favorite poem:

"Mir wird von alledem so dumm,  
Als ging mir ein Mühlrad im Kopf herum."

[I feel as stupid from all you've said,  
As if a mill-wheel whirled in my head.]

—Bayard Taylor's translation.

We must forgive him; he is a scientist, an able man in his specialty, but incapable of understanding Vedantism. On the other hand, words satisfy a certain class of people, and provided they sound well, they have an appearance of profundity that is sufficient to fascinate many poetic minds. Says Mephistopheles in the same scene of Goethe's Faust in an ironical praise of words:

"Mit Worten lässt sich trefflich streiten,  
Mit Worten ein System bereiten,  
An Worte lässt sich trefflich glauben,  
Von einem Wort lässt sich kein Iota rauben."

[With words 'tis excellent disputing;  
Systems to words 'tis easy suiting;  
On words 'tis excellent believing;  
No word can ever lose a jot from thieving.]

Said my friend, the physicist, in continuation of his comments on Vedantism:

"At any rate there are classes of people who will take delight in expositions of such a kind, but I do not belong to them. I want clear, definite ideas, and am not satisfied unless words can be clearly defined and understood. A philosophy which deals in mystic notions and produces ecstasies will be more satisfying to Orientals than to Western people, to ladies and sissies than to scientific thinkers, but I for one cannot find much satisfaction in it. I need scien-

tific explanations. I am too narrow, too prosaic, too unmetaphysical. Such is the disposition of my mind, and I cannot help it."

A mutual friend from the distant East had in the meantime approached, and the professor turned to him, saying: "Excuse me for my inability to grasp your truth. Pity me if you will, and pray for my soul, but I fear I am a hopeless case. The facts as I know them are rigid and horribly obstinate things, while your Vedantic thoughts are beautiful, artistic and charming, but vague, inexact and unscientific; but they are fragile and fall to pieces at a touch. Science has its faults; it is narrow and one-sided. I am a scientist; bear with me."

Just one more point,—in reference to the Vedantic term *atman*, which means "self" and denotes the "soul." The idea of the soul as a metaphysical entity is probably a very old conception, and must have existed in the days of Gautama Buddha, the founder of the new religion which gradually spread over the valley of the Ganges and then over all of Asia, but was finally exterminated in its original home, India. Then Brahmanism was reintroduced and insisted most vigorously on the very doctrine that had been combatted by Buddhism—the doctrine of the *atman*, the existence of the soul as an independent self.

Buddhism is very modern in its philosophy, and emphasizes the positive and scientific aspect in religion and philosophy. Buddha claims that the soul is not an intrinsic unit, but a cooperation of psychic activities; and at the time when Buddhism was proscribed and the older Brahmanism restored, the philosopher of this reformation was Shankaracharya, the systematizer and formulator of this theory of the *atman*.

It would take a long article merely to discuss the meaning of the *atman*, and I will not enter here into details as I have discussed the subject repeatedly.<sup>2</sup> I will simply say that the term *atman* in Vedantism is the hypostatization of a general concept into a concrete actuality, a procedure which is apt to produce the metaphysical notions in the domain of philosophy. So we shall have to deal with it in the same way, and it will come to pass that the scientific psychologist will be regarded as a nihilist by metaphysical thinkers, just as Buddha's psychology is denounced as "a psychology without a soul."

The belief in these metaphysical entities has become so impor-

<sup>2</sup> *Buddhism and Its Christian Critics*, pp. 87 ff. Open Court, X, 4851.

tant to the Vedantist that to him the simpler and purely scientific view seems irreligious and infidel. It was Buddha who proved to the world that a religion, yea, a very devout and stern religion, can be built up upon the most radical foundation. And why? Because the real self is as important as the shadowy metaphysical self, and if the atman is treated as an eternal unit, as in Vedantism, it may serve as a symbol of the character of a man, as his mind, his spirit, his heart, or his soul, and in this sense Buddha teaches his disciples to rid themselves of their impurities as a silversmith blows off the impurities from the silver when preparing it for his furnace (Dhammapada, 239).

In the original, Buddha here uses the very term atman, not of the metaphysical soul-self, but of the actual self, the personality of his disciple. In practical questions, both the believer in a metaphysical soul and the philosopher of the anatman lay down the same moral maxims, but in theoretical explanations, we have the two views in contradictory opposition, the rigorously scientific view and the artistic vision of an attractive but hazy mysticism.

EDITOR.

### WHAT IS INTUITION?

What *is* intuition?

The dictionaries define the word as follows:

- a. "A looking upon; a seeing either with the physical eye, or with the 'eye of the mind.'"
- b. "Direct or immediate knowing; truths known by intuition are the original premises from which all others are inferred; intellectual intuition is applied to mystical vision; innate conceptions of right and wrong."
- c. "Any object or truth discerned by direct cognition; a truth that cannot be acquired by, but is assumed in, experience."
- d. "Pure untaught knowledge."
- e. "The term intuition will be taken as signifying a cognition not determined by a previous cognition of the same object, and, therefore, so determined by something out of the consciousness."

f. "Comprehension of ideas independently of ratiocination; innate or instinctive knowledge."

But these definitions are not, after all, very illuminating; they give no clear idea as to what intuition is. They create a certain inference: we seem to see in intuition a remote influence through which the attitude or the conduct of the individual is influenced. This influence appears to be highly subtle, having an apparent origin either in a higher plane of the human mind or in a plane higher than that of the human mind; it appears to be either ultrahuman or suprahuman. And our association with the word, and our experience with the phenomena of intuition have been such that we are ready to accept intuition at just this vague and mysterious valuation. But now are we right in so accepting it? My answer to that question is, No.

I look upon intuition as nothing more than a product of normal brain activity; there is nothing ultrahuman or suprahuman about it. I take it to be just reflex cerebration.

The grey cells of the human brain possess a function which is peculiar to those cells; and this function, which no other cell possesses, we name self-consciousness. But, in addition to this, they possess another form of consciousness, namely, reflex. In self-consciousness the action of the cells is directed from within, whether the action results in thought or in the direction of a muscle. In reflex consciousness action can be aroused only through external stimuli. Reflex consciousness is the primal form of consciousness, for the primitive brain, in the lower orders of evolution, was made up only of reflex centers. As these centers evolved, as the brain increased in size and the area of the cortex increased, the new self-consciousness became associated with the old reflex consciousness. As the animal developed he became more and more aware of what he was doing; his higher centers took command. But at first these higher centers were little better than the others. They had developed through the lower, and, because of this, their mode of action was the same; they were only reflex centers, even though they were thought centers. The animal began to think, but his train of thought could be started only through an outside circumstance. His thought lacked value for the reason that he was, as yet, weak in the two essentials to good thought: memory and experience. As time went on, continued use of the new centers developed their function. Experience became wider, and memory grew stronger; and, as

memory developed, self-consciousness came into being. Self-consciousness was now supreme, for it was through this only that thought could be directed and regulated. Without self-consciousness thought would be only reflex thought, automatic thought, thought not controlled by the individual.

Of the two forms reflex thought is the older; it is, in fact, the first form of thought, basic thought, and it will, therefore, always exert its influence upon the cerebral cells. And even though self-conscious thought has become the dominant influence in the cerebral cortex, reflex thought still has a place there. It has existed as long as the brain has existed, for perhaps a million years, and its influence is going to persist for an indefinite period, perhaps as long as the brain of man endures.

We find then that the higher centers have reflex action just as the pure reflex centers have; the one is as easily excited to action by an external stimulus as is the other. But there is this difference between the two: Whereas pure reflex action is non-conscious action, this thought-reflex may be either non-conscious or conscious; the individual may or may not know what his thought cells are doing. These cells were created to act in a certain direction, and they always act in that direction, whether controlled or uncontrolled. *They do not need the direction of the individual in order to act, although they act better when so directed.* Thought can go on without the participation of the individual. The cells having been developed for the purpose of thought, and having performed that function for countless centuries, cannot avoid the thought-reaction when excited by the proper stimulus. The action has become a "habit-action," and through force of habit the cells think, even before the individual is aware. The fact that thought goes on in our dreams will prove this.

Intuition, then, is reflex thought; it is habit-action of the thought-cells, non-conscious action. The period of this non-conscious action is usually very short: the cells perform this non-conscious action, and then the individual becomes aware of the action. But that which he perceives is, not the action itself, but the result of the action. He perceives this result, and, not knowing that his own cells have evolved that result, he calls it "intuition," that is, a supernatural admonition. It does no harm to call this thing intuition; but it is wrong to give it that exalted value. It is merely reflex thought, without the value even of self-conscious thought.

The value of thought depends upon two things: the extent of the individual experience, and the degree of the individual self-consciousness. If a person has had a wide experience of a subject under discussion, and if he has been trained to think, if he knows how to use his experience, then his thought is going to be of value. His thought *must* be guided by his self-consciousness. Now reflex thought is not so guided. Cell action, whether conscious or non-conscious, is determined by cell experience; but if the action is outside of the individual consciousness it lacks the essential attribute of real thought. At its best it is nothing more than half-thought. It is true that this attempt at thought may happen to move in the right direction, but it is only chance if it does; it may as easily move in the wrong direction. If it goes right we call it intuition; if it does not go right we say that we guessed wrong. And so, after all, in what way is intuition superior to a mere guess?

In conclusion let us again go over the definitions at the head of this article. It may be that now they will appear to us in a different light.

Definition *a*. "A looking upon; a seeing either with the physical eye, or with the 'eye of the mind.'"

This comes the nearest of any of the definitions to telling us what intuition is, but it fails to completely enlighten us. Looking upon an object with the "physical eye" may bring intuition into action, but what is the action? So, also, may looking upon an object with the "eye of the mind," but, again, what is the action? We find that what these acts of looking do is to excite thought about the object looked at. If the object is something new to the observer the individual stores up in his memory the new image-impulses which come to him from it; if it is an object with which he already is familiar it recalls to his consciousness the images which former "lookings" have stored there. If now, while we look upon the object, we fancy that we have some subtle knowledge of it, we call that intuition, and we imagine vain things about the high origin of this knowledge. But if we analyze the matter, if we look into our thought-cells, do we find anything in those cells behind those thought-images? Is there anything in the thought-cells that is above thought? The answer to that question will determine the status of intuition.

Definition *b*. "Direct or immediate knowing; truths known by intuition are the original premises from which all others are inferred; intellectual intuition is applied to mystical vision; innate conceptions of right and wrong."

What is meant by the above expressions? What is "direct knowing"? Where are the "original premises"? What is "mystical vision"? What are "innate conceptions"? Are these anything more, in our present light, than figures of speech? The words "direct," "original," "mystical," "innate," have no right to be used here. The use of the words merely elevates the subject to the realm of the supernatural, where it has no place. Being just a process of human thought, it cannot go above thought.

Definition *c*. "Any object or truth discerned by direct cognition; a truth that cannot be acquired by, but is assumed in, experience."

Here we find the word "direct" again, and we voice the same objection to it. There is no such thing as "direct cognition" as applied to the human brain; also, there can be no such thing in the cerebral cells as a truth *not* acquired by experience.

Definition *d*. "Pure untaught knowledge."

I take this to mean knowledge not acquired through experience. There can be no such knowledge in the human brain. If such knowledge were possible some of us would never need to study; but even the genius has to do that.

Definition *e*. "The term intuition will be taken as signifying a cognition not determined by a previous cognition of the same object, and therefore so determined by something out of the consciousness."

The process of intuition *does* take place "out of the consciousness"; but *there must be* a "previous cognition," else there can be no intuition. Intuition, like thought, depends upon experience, upon knowledge.

Definition *f*. "Comprehension of ideas independently of ratiocination; innate or instinctive knowledge."

Both of these may be denied. There can be neither "comprehension of ideas independently of ratiocination," nor "innate or



intuitive knowledge" in the cells of the human brain. Such action, to exist, must be above the human, must be supernatural; but we have no evidence that it is. If it were a superhuman impulse for the direction of human conduct it would be more in evidence, *it would be more certain*, it would be more constant. The intuition with which we are acquainted gives merely an occasional manifestation, and that manifestation is colored by the individuality of the person through whom it comes. In short, intuition shows no higher origin than does thought. It is nothing more than cerebration, reflex cerebration, and holds no value beyond that. Its value is no greater than the experience of the individual through whom it is manifested, or that is given to it by chance.

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#### CROCE'S USE OF THE WORD "INTUITION."

Benedetto Croce is a leading Italian scholar whose theory of esthetics forms an essential feature of his philosophy. One difficulty in following his thought lies in the significance of his fundamental terms, among which the idea of "intuition" presents unusual difficulties. Croce's conception of intuition is apparently different from that of Kant and also from its interpretation in mystical writings. In Kantian literature the word "intuition" translates the German term *Anschauung*, which denotes a state of mind in which an object is presented to the vision of the eye. It is the object as it is perceived by the sense of vision.

*Anschauung* or intuition may be either the function of beholding or the thing beheld which is the product of the function, the actual process as we feel it, as it works out and mirrors the sense impressions received in the pictures that appear before our eye. These pictures are chemical modifications of our retina, but in the psychological interpretation which they receive they lie outside of us as things or objects of the surrounding world. This is *Anschauung* in the Kantian sense.

The term *Anschauung* created a difficulty for the translators of Kant, but they cut the Gordian knot by translating the word by the corresponding Latin term *intuitio*. The unfortunate feature of this word is that it has served as a mystical description of the visions of our imagination,—not the actual sight of our eye but visionary

ideals such as the dreams of a prophet, be he genuine or a fanatic,—or as poetic conceptions expressed in some visualized or visible form.

Poetical dreams of this kind come to the real poet not by the slow and elaborate process of argument but by a prophetic insight,—by a sudden enlightenment comparable to a flash of divine inspiration. This is intuition in the mystical sense.

We need not here enter into details as to the psychology of mystical intuition, its natural origin and development in the realm of the subconscious, and its sudden and unaccountable appearance in consciousness in such a manner as to lend itself readily to a mystical interpretation. Suffice it to say that the uncritical observer receives the impression that even in his own visionary experiences he is dealing with divine inspiration. Intuitions are described as coming to the poet by revelations from on high, and therefore he claims that he does not shape his thoughts himself but discovers them, the subconscious process remaining hidden. He is conscious only of the result which is suddenly presented; the vision is shown to him as if it had existed and is seen only by him because he is a favorite of the Deity, of the muse, or whatever the mystical source and power may be called.

Kant's term *Anschauung* is very different. It does not contain the slightest element of mystic thought. It has reference to the sensation of sight and may frequently be translated by the word "sensation" itself. The difficulty of translating the German word *Anschauung* consists in the fact that there is no English word of Saxon derivation expressing the meaning of that which has become an object of sight, and just as the word *Anschauung* is indigenous German, so the English language should have an indigenous Saxon term to express the meaning of the word *Anschauung*. It is a peculiarity of English words derived from the Latin that they express abstractions. Thus the Latin translation *intuitio* implies the idea of an abstract designation, while a Saxon word composed of purely Saxon elements with the same meaning as *intuitio* would naturally refer to a concrete process of well-known and daily experience. It is for this reason that some time ago, while discussing the difficulties of Kantian philosophy, I proposed the adoption of a purely Saxon word "atsight" to fill this gap in the English. The word "atsight" denotes that which is at sight, so that it can be seen and is actually beheld. The difficulty of the term consists in its newness, but it is easily understood by its etymology and is justified

by analogy. As the eye pictures what is presented to it by being at sight, so the process of looking into the nature of things is called "insight." Thus the difficulty due to the newness of the word can easily be overcome. The Latin word "intuition" exactly translates this new word "atsight," but we must beware of the mystical meaning of it, and, when reading Kant, we must remember that Kant's term *Anschauung* excludes the mystical from its meaning and that this difficulty is presented only in translations.

A new difficulty presents itself when we read Croce's expositions. It seems to me that Croce uses the term "intuition" in a third sense which has an element of each meaning. Unless I am greatly mistaken the visionary element is not absent, and the intuition of the poet is in so far added as Croce distinguishes his term "intuition" from both concept and sensation. Sensation is simply the crude material received by the senses, while intuition embraces what Croce calls "expression," which means that it is worked out into a concrete vision poetically presented, not as a mere definition of an idea but as an artistic picture in all details and concretely individualized.

Whether this view is correct ought to be established by a critical student of Croce's philosophy, or, better still, perhaps Professor Croce himself will tell us whether we have rightly understood his theory.

As to the essential significance of his esthetics we are glad to say that we agree with him thoroughly, although we approach the problem from a slightly different angle. Whatever may be the artist's definition of beauty is a matter of secondary importance, but it is essential to know what art is, how it originates, why it exists and what is its purpose.

Art has been defined as a presentation of beauty, but how often does art present the ugly, the terrible, the dastardly. Tragedy is described by Aristotle as the highest product of art, and it is a struggle between the good and the evil, in which the good suffers and succumbs. Art has been characterized as an imitation of nature; but music is not an imitation of bird songs, otherwise one of Beethoven's sonatas would be a gross aberration from the art ideal. Music builds up a world with its own laws in the realm of tones. It is an original creation at best parallel to the actual world in general, but not an imitation of nature. One feature, however, is noticeable in all arts. It is this, that art presents the world-conception of the artist in concrete definite instances. The artist imitates

nature in the sense that he builds up a world and delineates it before our eyes. The tragedian pictures life as a struggle and points out how a good cause may triumph while its hero sacrifices himself, and the landscape painter portrays human sentiments, or as the Germans say *Stimmung*, in the shape of clouds and trees and atmosphere. In the creations of the artist the chief thing is the spirit or mood which dominates them. Art may describe something beautiful or something ugly, something real and natural or something non-existent, a world of laws extending through infinite space—it is always a creation, always the production of a world, always a description of life and the laws of life.

EDITOR.

#### FOUR-PLY PANDIAGONAL ASSOCIATED MAGIC SQUARES.

Mr. Frederic A. Woodruff has sent us three original magic squares, one each of orders 8, 12 and 16. The two smaller squares

1	32	34	63	37	60	6	27
48	49	15	18	12	21	43	54
19	14	52	45	55	42	24	9
62	35	29	4	26	7	57	40
25	8	58	39	61	36	30	3
56	41	23	10	20	13	51	46
11	22	44	53	47	50	16	17
38	59	5	28	2	31	33	64

Fig. 1.

1	140	81	36	77	100	73	104	9	108	119	28
143	6	63	110	67	46	71	42	135	38	31	118
25	116	105	12	101	76	97	80	33	84	137	4
113	30	39	134	43	70	47	66	111	62	7	142
16	125	96	21	92	85	88	89	24	93	128	13
131	18	51	122	55	58	59	54	123	50	19	130
15	126	95	22	91	86	87	90	23	94	127	14
132	17	52	121	56	57	60	53	124	49	20	129
3	138	83	34	79	98	75	102	11	106	115	26
141	8	61	112	65	48	69	44	133	40	29	120
27	114	107	10	103	74	99	78	35	82	139	2
117	32	37	136	41	72	45	68	109	64	5	144

Fig. 2.

are four-ply, pandiagonal and associated, and the one of order 16, besides having these features, is also Knight-Nasik.

Mr. W. S. Andrews writes us that these squares are very interesting mathematical curios inasmuch as they probably present

the best combinations of ornate features that are possible in their respective orders. Mr. Woodruff has also devised ingenious mathe-

1	234	49	240	143	80	161	128	113	176	65	160	225	64	209	16
254	35	206	19	110	179	94	131	142	89	190	99	30	185	46	243
4	221	52	237	148	77	164	125	116	173	68	157	228	61	212	13
253	34	207	18	111	178	95	130	143	82	191	98	31	184	47	242
10	215	58	231	154	71	170	119	122	167	74	151	234	55	218	7
245	44	197	28	101	188	85	140	133	92	181	108	21	204	37	252
11	214	59	230	153	70	171	118	123	166	75	150	235	54	219	6
246	41	200	25	104	185	88	137	136	89	184	105	24	201	40	249
8	217	56	233	152	73	168	121	120	169	72	153	232	57	216	9
251	38	203	22	107	182	91	134	139	86	187	102	27	198	43	246
5	220	53	236	149	76	165	124	117	172	69	156	229	60	213	12
250	39	202	23	106	183	90	135	138	87	186	103	26	199	42	247
15	210	63	226	159	66	175	114	127	162	79	146	239	50	223	2
244	45	196	29	100	189	84	141	132	93	180	109	20	205	36	253
14	211	62	227	158	67	174	115	126	163	78	147	238	51	222	3
241	48	193	32	97	192	81	144	129	96	177	112	17	208	33	256

Fig. 3.

matical tables by which squares similar to those here shown can be easily constructed in great variety.

The diagrams of Mr. Woodruff's squares were kindly drawn by Mr. H. Sayles.

EDITOR.

#### CURRENT PERIODICALS.

The number of the *Revue de métaphysique et de morale* which should have appeared in November, 1914, to complete the twenty-second volume, appeared in November, 1915. Victor Basch writes on the classical philosophy and literature of Germany, and pan-German doctrines; Louis Weber writes on affective memory, with reference to the work of Ribot and others; and Pierre Boutroux writes on the historical significance of Descartes's *Géométrie*. This last article does not seem to add much to what we know. There is a critical study by Harald Höffding of the book of 1912 by

the eminent sociologist E. Durkheim on the elementary forms of the religious life. Th. Ruysen, in an article under the heading "Practical Questions," discusses force and law. A supplement contains a list of the courses of lectures on philosophical subjects given at the universities in France and Switzerland, and reviews of books and periodicals.

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In *Scientia* for December, 1915, Gino Loria gives a rather slight sketch of the ideas of the ancient Greek mathematicians on the infinite and infinitesimals. Charles Fabry continues from the preceding number of *Scientia* his article on luminous atoms and their motions; this part of his article is on the constitution of the luminous atom and he remarks that the notion of atom loses more and more its etymological meaning. W. H. Bragg describes his new methods of studying crystalline structure by the X-ray spectrometer, which open up an entirely new method of describing the characteristic features of crystals. Ramsay Muir discusses the problems of future peace in a reprint of the preface to the English translation of Rignano's article in the number of *Scientia* for June and July, 1915. Prospero Fedozzi writes on the teaching of the war with regard to the treatment of foreigners. E. S. Russell discusses recent books by Bateson and Ruggles Gates in a general review on the problem of species and their origin. There are also reviews of books and periodicals, a chronicle of events, and French translations of the Italian and English articles.

In the number of *Scientia* for January, 1916, Gino Loria continues his article on the infinite and infinitesimal. After shortly sketching the way in which science came out again from the darkness of the Middle Ages, the author gives a very able sketch of the progress made by mathematicians, from this time to the end of the seventeenth century, in the conceptions which finally led to the infinitesimal calculus. Percival Lowell gives a short but highly interesting paper on modern work relating to the atmosphere of Mars. Hugo de Vries writes on the evolution of organized beings in a discontinuous manner, which is proved by the work of Nilsson. There are two articles on questions raised by the war: one is by Augusto Graziani on the future economical consequences of the war, and the other is by André Weiss on past and future international law. There are also the usual reviews of books and period-

icals, a chronicle, and French translations of articles in Italian and English.

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*The Bulletin of the American Mathematical Society* for December, 1915, contains articles on absolutely continuous functions (M. B. Porter), on the representation of numbers in a certain form (R. D. Carmichael), on the linear continuum (Robert L. Moore), and a problem in the kinematics of a rigid body (Peter Field). R. C. Archibald gives a very interesting and apparently complete list of memoirs on Henri Poincaré that have appeared of late years. The beginning of this article is a review of some books on Poincaré's life and work, and there are several other reviews in this number, marked, as reviews in the *Bulletin* always are, by great learning and critical ability. There are also some notes and a classified list of new publications on pure and applied mathematics. Moore's article just mentioned is of particular interest to the readers of *The Monist*, as it is concerned with the logical question of a set of axioms for geometry. This subject has always appealed strongly to American mathematicians, and their work stands by the side of the splendid work in this direction of Pasch, Peano and Pieri, and is markedly superior to the later work initiated by Hilbert, which has attained such fame. The sixteenth volume (1915) of the *Transactions of the American Mathematical Society* contains renewed proof of this: Robert L. Moore of Philadelphia writes on a set of postulates which suffice to define a number plane, and Meyer G. Gaba of Pittsburgh writes on a set of postulates for general projective geometry. Besides this, there are two exceedingly interesting papers in French: one by Maurice Fréchet on bilinear "fonctionelles," and a long and important work by Charles de la Vallée Poussin, now of Cambridge, Mass., on Lebesgue's integral.

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In *Science Progress* for January, 1915, S. C. Bradford discusses (i) color and chemical structure, (ii) the Liesegang phenomenon in gelatin and allied substances; Dr. David Ellis writes a beautifully illustrated paper on the iron-bacteria; Sir Ronald Ross continues his important mathematical researches on the solution of equations by operative division; and T. A. Mason concludes his deeply interesting study on the influence of research on the development of the coal-



tar industry. There are also essay-reviews and a large number of other reviews of books, full accounts of recent advances in all branches of science, and notes and correspondence. ☐

#### KARL EUGEN NEUMANN.

Word has been received from Vienna announcing the death, on October 18 last, of Dr. Karl Eugen Neumann, an oriental scholar who opened to modern readers a larger part of the Buddhist Pāli canon previously untranslated than probably any other man, with one or two exceptions. Having been born October 16, 1865, he had passed the half-century mark by just two days when he died. The cause of his death has not been learned, but his age rebuts the presumption, which otherwise would be strong, that he was killed in the war. In spite of the reports of almost universal draft which come from his city, as from Teutonic countries generally, it is hardly likely that a man of learning so near the age limit would have been taken. This war has indeed wrought great havoc in scholarship. At its beginning some half dozen German philologists were editing manuscripts for the (English) Pāli Text Society, which has been left wondering whether they are still alive. Neumann was not one of these, apparently; his work consisted in converting the ancient into a modern tongue. His fame was limited by the small circulation which oriental literature, when presented in a full and faithful form, almost invariably receives; and the fact that he wrote in German barred him from this country, where an intelligent knowledge of that language is not common, in spite of the many who are acquainted with it colloquially or superficially.

Dr. Neumann's work of greatest interest was the publication, in 1899, through Ernst Hofmann & Co., Berlin, of his *Lieder der Mönche und Nonnen Gotamo Buddho's*, being the first translation of the Therā-theri-gāthā. This is perhaps rightly to be judged the most important collection of verse in the Buddhist canon, not even excepting the Dhammapada. As an evidence of personal religious experience, it is one of the most significant books in all literature and is likely to become celebrated when, twenty-five or fifty years hence, writers on religious psychology discover it. Dr. Neumann treated these hymns in a manner which has been very unusual in dealing with Buddhist poetry—he rendered them rhythmically and gracefully. His stanzas—iambic tetrameter blank verse quatrains for the most part—abound in happy phrases, are distinguished by a peculiar dignity, and possess a melancholy charm of sound which goes far toward suggesting the feeling appropriate to them. No translation of these gāthās appeared in English until ten years later, when Mrs. Rhys Davids brought out the *Psalms of the Early Buddhists*, the Sisters in 1909 and the Brethren in 1913.

A work of greater magnitude by Neumann was his translation—much of it for the first time—of the Majjhima and Dīgha Nikāyas, vast collections of homilies or dialogues attributed to Buddha, and of such early date that they may be considered as containing much that he really uttered. These books have long been recognized as embodying the doctrinal substance of the Pāli canon, and many selections of them had before been made, but it remained for

Neumann to perform the heroic task of coping with them in bulk. Their publication (here assumed to be complete) under the title *Die Reden Gotamo Buddho's* extended over the years 1896-1912. A minor work, printed in 1892, the *Buddhistische Anthologie*, had contained some extracts from the two Nikāyas mentioned, as also from the Anguttara Sangyuttaka. He also published (1905) a version of the Sutta Nipāta, which had already been done into English.

As a philologist Neumann had the courage to defy convention by following the actual Pāli nominatives of nouns, thus writing "Buddho" and "Gotamo" instead of "Buddha" and "Gotama."

For a well-rounded sketch of his life, data are not at hand as this is written. His birthplace, it may be added, was Vienna; his education was obtained at schools there and in Leipsic, at a Higher Gymnasium in Prague and at the Universities of Berlin and Halle. It is fitting that all students of Buddhism should acknowledge his great and splendid achievements and remember him as a scholar of distinction in his chosen field. Particularly is this recognition due now in America, where there exists a conspiracy of spite against all things German, and where a great popular lecturer who feels himself called to the moral instruction of mankind abandons a course in German literature from malice. One who does not claim a drop of German or Austrian blood is glad to offer this tribute to Karl Neumann. As an exponent of a religion incommensurable with violence, it should be gratifying to feel that in the midst of war he probably died a peaceful death and that thus the consistency of his life-long devotion was not shattered. EDWARD P. BUFFET.

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#### NOTES.

Prof. A. H. Lloyd of Ann Arbor, Michigan, has published in *The American Journal of Theology* of January, 1916, an essay on "Incarnation," which treats the subject in three parts: first, A Modern Superstition; second, What Ideals Are Made of; and third, Some Practical Values of Mystery.

Our author concludes his essay as follows: "I set out to speak of the values of mystery. There were three to which I wished to call attention. Mystery was the background of real opportunity. Mystery brought to life a saving humor. And mystery could make its object real only by making it an object of will. A world of untold opportunity, of nothing less than the opportunity of incarnation, realizing the spiritual in the natural, finding the ideal in the actual, stands before the will of the present day." K